

## PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



December 24, 2021

Sidney Bob Dietz II  
Director, Regulatory Relations  
c/o Megan Lawson  
Pacific Gas and Electric Company  
77 Beale Street, Mail Code B13U  
San Francisco, CA 94117

**Subject: PG&E's 2021 Low Carbon Fuel Standard Implementation Plan**

Dear Mr. Dietz:

Pacific Gas and Electric Company's (PG&E) Advice Letter (AL) 6226-E as supplemented by AL 6226-E-A, "PG&E's 2021 Low Carbon Fuel Standard Implementation Plan," which requests approval of PG&E's Low Carbon Fuel Standard (LCFS) Implementation Plan for programs funded with LCFS credit revenue, is approved and effective as of today.

PG&E AL 6226-E demonstrates compliance with D.20-12-027, so long as PG&E's reported Holdback spending ultimately meets the expected and required equity spending within D.20-12-027. Further, while we have performed due diligence, this letter does not constitute the California Air Resource Board's (CARB) approval of PG&E's Holdback programs.

While the Implementation Plan is approved pursuant to these conditions, PG&E should ensure that if choosing to implement utility-ownership of customer-side infrastructure, that PG&E file a subsequent AL to outline the details of this implementation. This non-standard disposition letter further outlines additional informal collaboration PG&E must complete:

- 1) Follow up with SBUA and Energy Division staff on the details and timing of the small business study;
- 2) Follow up with SBUA and Energy Division staff to clarify when PG&E plans to determine whether private charging would be included for small businesses within the MUD and Small Business Direct Installation Pilot;
- 3) Follow up with Energy Division staff on the development of the program to contract with CBOs on outreach to equity customers, on the development of that program, on data collection, and on lessons learned;
- 4) For all programs, work with Energy Division staff to finalize the data collection, determine when PG&E will share program reporting and evaluations, and how it will make these evaluations available to the public, where appropriate;
- 5) PG&E should track the equity vs. non-equity designated customers that receive rebates within the Residential Charging Solutions Pilot and consult with Energy Division staff in determining any

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necessary modifications to the pilot in the future if the pilot is not sufficiently providing direct benefits to equity designated customers;

- 6) PG&E should work with Energy Division staff to ensure communications to customers within the Resilient Charging Pilot are clear that V2H equipment is different than unidirectional and ensure the survey of customers includes evaluation of whether customers are willing to pay the incremental cost to add V2H capability at their residence;
- 7) PG&E should work with Energy Division to ensure its evaluation of the Resilient Charging Pilot considers how the pilot could scale beyond PSPS events to unplanned outages as well;
- 8) PG&E should work with Energy Division and stakeholders to establish plans for future resiliency spending in support of the requirement in D.20-12-027 to spend up to 20 percent of the annual revenue on resiliency programs; and
- 9) PG&E should work with Energy Division staff to ensure that the Research and Innovation Fund Pilot does not overlap with any VGI Emerging Technology Program activities.

Attachment 1 contains a summary of the background, request, responses to AL 6226-E, and a discussion of our determination approving AL 6226-E, as modified by AL 6226-E-A.

Sincerely,

A handwritten signature in black ink, appearing to read "ERANDOLPH (FOI)".

Edward Randolph  
Deputy Executive Director for Energy and Climate Policy

Cc: [PGETariffs@pge.com](mailto:PGETariffs@pge.com)  
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[Service List R.18-12-006](#)

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**Attachment 1****Background**

On December 17, 2020, the California Public Utilities Commission (CPUC) approved Decision (D.) 20-12-027, *Decision Concerning Low Carbon Fuel Standard Holdback Revenue Utilization* as part of Rulemaking (R.) 18-12-006. The Decision adopted elements of a Transportation Electrification Framework (TEF) staff proposal regarding the investor-owned utilities' (IOUs) utilization of Low Carbon Fuel Standard (LCFS) holdback credit revenues<sup>1</sup> and electric forklift credit revenues. It directed the IOUs to spend the proceeds in accordance with the California Air Resources Board (CARB) LCFS regulation<sup>2</sup> and additional CPUC guidelines. The Decision directs the IOUs to ensure the following:

- at least 35 percent of its LCFS holdback expenditures in 2021, 45 percent in 2022, 55 percent in 2023, and 75 percent in 2024 and thereafter must meet the equity project requirements of the CARB LCFS regulations;
- a portion of the LCFS holdback expenditures not spent on equity projects must be expended on resiliency projects in an amount of up to 20 percent of that year's LCFS holdback proceeds, unless the IOU can reasonably demonstrate why it is unable to do so;<sup>3</sup> and
- each IOU must pool the forklift credit revenue it receives with its holdback revenues.<sup>4</sup>

Ordering Paragraph 3 of D.20-12-027 directs each IOU to file a Tier 2 AL detailing its LCFS revenue return Implementation Plan no later than 180 days following the effective date of the Decision. Within that Implementation Plan, the Decision requires that the IOUs include: 1) a proposal for at least one program and 2) a description for how the IOU plans to spend the rest of the funds. This must include the status of the program development of the remaining program(s), the implementation timeline, and the approximate budget. Further, the Decision requires in the initial Implementation Plan, each IOU shall specify several additional details related to its implementation and compliance with the CARB LCFS regulation, D.2012-027, and D.14-12-083.<sup>5</sup>

**Advice Letter 6226-E, as supplemented by 6226-E-A**

Pursuant to D.20-12-027, PG&E submitted AL 6226-E with its 2021 LCFS Implementation Plan. The plan details five program proposals for the return of electric credit revenue to benefit current and future electric vehicle (EV) drivers—four holdback-funded programs and one non-holdback pilot. The plan also details the return of gas credit revenue to customers. Table 1 includes a summary of the proposed electric programs.

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<sup>1</sup> Holdback funds, as defined in Cal. Code Regs., tit. 17, § 95481, subd. (a)(6), are the utilities' LCFS funds remaining after their required contribution of credit revenues to the statewide California Clean Fuel Reward program.

<sup>2</sup> CCR title 17, sections 95480-95503

<sup>3</sup> Ordering Paragraph 1

<sup>4</sup> Ordering Paragraph 2

<sup>5</sup> D.20-12-027 page 26 - 32

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Table 1: PG&amp;E's proposed 2021 LCFS electric programs

Proposed Program	Description	Duration	Equity or Resiliency Compliance
<b>Pre-Owned EV Rebate Program</b>	Provide a post-purchase rebate for used EVs, with a base rebate of \$1,000 for all customers, and an additional rebate of \$3,000 for income-qualified customers. <sup>6</sup> The program will limit the number of rebates per vehicle identification number (VIN) to no more than one rebate in 12 months.	2022-2024	Equity <sup>7</sup>
<b>Multi-Unit Dwelling (MUD) and Small Business Direct Install Pilot</b>	Install low-power chargers (L1 and L2) at small MUDs and small businesses. The pilot will cover all EVSE installation costs and two years of networking and software fees for the site host. The implementer will be responsible for procuring EVSE and coordinating the installation at the site so that the site host has no upfront costs.	2022-2024	Equity <sup>8</sup>
<b>Residential Charging Solutions Pilot</b>	Develop educational resources and provide financial support to help customers install EV charging at homes—single family or MUDs—while avoiding or lowering the cost of electric panel upgrades and/or electric distribution grid upgrades. Implementation will be in phases—1) customer assessment tool that improves on existing online tools, including buildout of a “home charging wizard” tool, 2) technology solutions rebate focused on avoiding panel upgrades to help renters and customers for whom an upgrade	2022-2024	Equity <sup>11</sup>

<sup>6</sup> Below 80 percent of the area median income (AMI).

<sup>7</sup> Contributes to equity compliance, but also allows for spending outside of the funds earmarked for either equity or resiliency.

<sup>8</sup> PG&E aims to have all sites participating in the pilot be in equity communities or specifically serving equity customers (e.g., affordable housing units), but PG&E may allow some non-equity sites in the pilot with some form of cost sharing.

<sup>11</sup> There will be targeted outreach to eligible customers residing in the equity communities as outlined in D.20-12-027, but all customers will be eligible for rebates.

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	would present challenges, <sup>9</sup> and 3) additional financial support solutions. <sup>10</sup>		
<b>Resilient Charging Pilot</b>	Test third-party software to communicate with customers and actively manage EV charging for the customer prior to a PSPS event to ensure they have enough charge in case of emergency. The pilot will target customers who live in High Fire Threat Districts (HFTDs) and areas likely to be impacted by PSPS.	2022 <sup>12</sup>	Resiliency <sup>13</sup>
<b>Research and Innovation Fund Pilot</b>	Fund small proof-of-concept pilots and research studies to support research and development in TE technology and generate lessons learned that can inform other PG&E TE programs. The pilot will focus on quickly assessing TE technology solutions and filling in data gaps. The pilot is designed to fill in gaps and be complimentary to the work of other innovation funds [i.e., Electric Program Investment Charge Program (EPIC), VGI/Transportation Electrification Emerging Technology Program].	2022+	N/A - non-holdback LCFS revenue <sup>14</sup>

On October 6, 2021, PG&E filed supplemental AL 6226-E-A to modify the proposed program administration for the Resilient Charging Pilot. The request is to allow PG&E to issue either a Request For Proposal to select a pilot implementer or to issue a direct award to a third-party to be the implementer. The supplemental clarifies that PG&E may choose between selecting “a highly qualified and cost-competitive implementer via RFP or direct award.”<sup>15</sup>

**Responses to AL 6226-E**

WeaveGrid and Public Advocates Office submitted responses to AL 6226-E on July 6, 2021, and Small Business Utility Advocates (SBUA) submitted a letter in response to the AL on July 19, 2021.

<sup>9</sup> All customers with proof of a Level 2 EVSE purchase will be eligible for the rebate.

<sup>10</sup> The potential phase 3 would be proposed in a future update to the Implementation Plan, and is dependent on lessons learned from Empower EV and the outcomes of the Clean Energy Financing OIR—R.20-08-022.

<sup>12</sup> AL 6226-E states that PG&E may extend the length of the pilot based on customer interest and portfolio needs, and will work with ED staff on any adjustments to the pilot.

<sup>13</sup> This resiliency spending accounts for 15 percent of the holdback spending, not the full 20 percent allowed by the Decision.

<sup>14</sup> Funded with non-residential credit revenues from PG&E-owned EVSE at its offices and EVCN sites. These funds do not have the same equity and resiliency requirements as the holdback revenues.

<sup>15</sup> AL 6226-E-A makes changes to pages 51-53 and page 56 of AL 6226-E.

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SBUA requested that PG&E provide more detail regarding the timing of a study on small businesses that the AL references, as well as clarify when PG&E plans to determine whether private charging would be included for small businesses within the MUD and Small Business Direct Installation Pilot.

WeaveGrid expresses support for the Implementation Plan, and in particular PG&E's proposal for its Resilient Charging Pilot. WeaveGrid states that the Resilient Charging Pilot is an important next step in the evolution of PSPS and EV policy. If successful, WeaveGrid argues that these types of program offerings should be expanded quickly. WeaveGrid also suggests that PG&E and the CPUC consider telematics-based EV managed charging to accompany low-cost Level 1 and Level 2 EV charging installations and opportunities to foster awareness for managed charging opportunities directly alongside programs focused on providing EV rebates and educational resources.

In Public Advocates Office's protest to the AL, it argues that PG&E proposes to own TE infrastructure but fails to clarify how it will recover ongoing costs and revenue requirements for such infrastructure. Public Advocates Office recommends the CPUC issue a resolution to clarify that PG&E must exclusively recover all ongoing costs and revenue requirements through LCFS revenues.

In PG&E's reply to Public Advocates Office, it states that it does not propose to own or not own any TE infrastructure in any of its programs. PG&E is still determining the model for ownership for the MUD and Small Business Direct Installation Pilot. Regardless, PG&E clarifies that all ongoing costs associated with LCFS holdback programs will be recovered through LCFS revenue and will not result in increased electric rates. If PG&E pursues IOU ownership in that pilot, it states that it will file a supplemental AL with details on recovery of costs through LCFS revenue.

**Discussion**

In its AL, PG&E complies with the requirements of D.20-12-027, including being responsive to all of the required Implementation Plan questions, as well as providing a summary of these responses on page 64 of AL 6226-E. Further, PG&E demonstrates how it will comply with equity requirements outlined in the CARB LCFS regulation and D.20-12-027.

**Issues Raised in Replies**

Public Advocates Office's protest to request that the CPUC issue a resolution to clarify that PG&E must exclusively recover all ongoing costs and revenue requirement through LCFS revenues is denied. D.20-12-027 is already clear on this matter, as the decision only authorizes the use of LCFS funds for the programs and does not give the IOUs any authority to utilize ratepayer funds. Further, PG&E's reply states that all costs associated with the LCFS holdback programs will be recovered through LCFS revenue and will not result in increased rates.

On the topic of utility infrastructure ownership, PG&E's response addresses Public Advocates Office's concern, as PG&E states that if it does pursue utility ownership in the MUD and Small Business Direct Installation Pilot that it will file an AL with details on recovery of costs. As utility ownership with LCFS revenue would be a new model from what the IOUs have implemented to date, we agree with PG&E's

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reply that filing another AL would be appropriate. Accordingly, Public Advocates Office's protest is denied. However, we reiterate here that any request from PG&E to recover costs from ratepayers, including earning a rate of return on charging infrastructure, will be denied.

SBUA's letter requests additional detail on the small business study and its timing. Since the Implementation Plan references collaboration with SBUA on the MUD and Small Business Direct Installation Pilot, it seems reasonable that SBUA should have more details on the study in question. In particular, PG&E should provide SBUA and Energy Division staff information on the timing and scope of the study, as well as how PG&E may utilize its findings within the implementation of the MUD and Small Business Direct Installation Pilot. This information may be provided informally through email to relevant Energy Division staff and SBUA representatives.

SBUA also requests clarification on when PG&E plans to determine whether private charging would be included for small businesses within this pilot. PG&E should additionally clarify with both SBUA and Energy Division staff on whether private charging for small businesses will be part of this program. This information may be provided informally through email to relevant Energy Division staff and SBUA representatives. As WeaveGrid's reply to AL 6226-E did not have a direct request associated with the programs in this Implementation Plan, we do not find any need for follow up action within this non-standard disposition. WeaveGrid includes a recommendation for the CPUC and PG&E to consider telematics-based EV managed charging, however it is not necessary to address this suggestion within this non-standard disposition letter as the suggestion is not clearly directed at modifying the programs AL 6226-E proposes.

### Equity Spending

AL 6226-E includes budgets for each program area, which PG&E submitted to the CPUC confidentially. While some of these budgets will clearly go towards meeting one of the Decision's expected spending goals (e.g., Resilient Charging Pilot budget will go entirely toward supporting the resiliency goal), the equity projects contain a mix of authorized equity spending and non-equity spending. The Pre-Owned EV Rebate Program includes incentives for low-income customers, but also includes incentives for non-income qualified customers; the Residential Charging Solutions Pilot will target outreach to customers in equity communities as outlined in D.20-12-027 but will allow all customers to be eligible for rebates; and the MUD and Small Business Direct Installation Pilot may allow some non-equity sites in the pilot.

As PG&E cannot currently certify the level of customer interest and annual breakdown in spending between authorized equity spending, as defined and approved by CARB, and non-equity spending within these programs, it is PG&E's responsibility to ensure that the equity spending requirements defined in D.20-12-027 are met.

### Data, Evaluation, and Public Information

In AL 6226-E, PG&E discusses its plans to formally partner with community-based organizations (CBOs) for conducting outreach and marketing. PG&E states that it plans to issue an RFP to contract with a set of CBOs across the territory to support outreach to equity customers on a portfolio level. This approach is based on feedback PG&E received from CBOs that educating customers about a single program is

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ineffective. As this is a novel approach to working with CBOs in the TE space, PG&E should share with Energy Division and the Program Advisory Council (PAC) lessons learned from its partnership with CBOs, and data on this approach's ability to reach equity customers through outreach and marketing. This information may be provided informally through email to relevant Energy Division staff and PAC members.

PG&E has stated that there will be a two percent evaluation budget for each program to collect and analyze data to assess performance, barriers, customer pain points, and opportunities. PG&E should work with Energy Division staff to finalize the reporting process throughout the implementation of the programs, scope of the evaluation, including which data points will be evaluated, and the process for development and review of the evaluation including public disclosure.

As the Residential Charging Solutions Pilot is categorized as an equity program, yet will allow all customers to be eligible for rebates, PG&E should track and report to the Energy Division the equity vs. non-equity designated customers that receive the rebates. Further, if data shows that the program is not sufficiently directly benefiting equity customers, PG&E should work with Energy Division to propose modifications to the pilot.

Lastly, PG&E should ensure that information on these programs is available and easily accessible on the PG&E website. As individual EV drivers are the credit generators that fund these programs, the public should all be able to easily understand which investments the LCFS credit revenue goes toward.

### Resiliency Spending

While the proposed Resilient Charging Pilot supports customers impacted by PSPS, the tie to resiliency could be improved in future LCFS holdback funded programs that build upon this pilot. In regard to the communication with customers on vehicle-to-home (V2H) charging, PG&E should work with Energy Division to make sure communications to customers are clear that the equipment necessary for V2H is different and may have additional costs than unidirectional equipment. As the pilot is targeting existing EV drivers, it seems likely that the majority would currently have existing chargers that are not V2H capable. Thus, beyond only gauging interest in V2H, PG&E's survey of customers should include whether there is a willingness to potentially pay incremental costs to add V2H capability at their residence.

Further, while the PSPS events provide a good testing ground to evaluate the ability to prepare EV drivers for potential outages, PG&E should work with Energy Division to determine how such a pilot could be scaled to other customer segments. The current pilot audience is narrow—EV drivers living in PSPS-prone outage areas—and without proper evaluation and consideration, this may have limited transferability to other types of outages. As other outages tend to be unplanned and PG&E may not be able to realistically notify EV drivers in advance, it should model the evaluation to consider how the pilot could scale beyond PSPS events.

Additionally, PG&E forecasts that the one resiliency pilot within its Implementation Plan will account for approximately 15 percent of holdback funding in 2022. PG&E is compliant with the directive to spend up to 20 percent of revenue on resiliency programs, and states it will strive to meet the higher spending

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threshold, based on lessons learned from this initial pilot and other ratepayer funded programs.<sup>16</sup> PG&E should continue to work collaboratively with Energy Division and stakeholders to establish plans for future resiliency spending.

**Research and Innovation Fund Pilot**

While PG&E does state that it has worked with staff to ensure that the Research and Innovation Fund Pilot does not conflict with EPIC and the pending VGI Emerging Technology Program,<sup>17</sup> PG&E should continue to work with Energy Division staff to ensure that the fund does not overlap with any VGI Emerging Technology Program activities.

**Disposition**

PG&E AL 6226-E demonstrates compliance with D.20-12-027, so long as the reported Holdback spending ultimately meets the expected and required equity spending within D.20-12-027. Further, while we have performed due diligence, this letter does not constitute CARB approval of PG&E's Holdback programs.

Energy Division approves PG&E's proposed LCFS Implementation Plan via PG&E's AL 6226-E, as amended by AL 6226-E-A. While the Implementation Plan is approved contingent upon these conditions, PG&E should ensure that if choosing to implement utility-ownership of customer-side infrastructure, that PG&E file a subsequent AL to outline the details of this implementation. PG&E should additionally publicize details of the LCFS programs on its website. Further, PG&E should work with Energy Division and parties informally on the following:

- 1) Follow up with SBUA and Energy Division staff on the details and timing of the small business study;
- 2) Follow up with SBUA and Energy Division staff to clarify when PG&E plans to determine whether private charging would be included for small businesses within the MUD and Small Business Direct Installation Pilot;
- 3) Follow up with Energy Division staff on the development of the program to contract with CBOs on outreach to equity customers, on the development of that program, on data collection, and on lessons learned;
- 4) For all programs, work with Energy Division staff to finalize the data collection, determine when PG&E will share program reporting and evaluations, and how it will make these evaluations available to the public, where appropriate;
- 5) PG&E should track the equity vs. non-equity designated customers that receive rebates within the Residential Charging Solutions Pilot and consult with Energy Division staff in determining any necessary modifications to the pilot in the future if the pilot is not sufficiently providing direct benefits to equity designated customers;

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<sup>16</sup> AL 6226-E page 50

<sup>17</sup> SCE AL 4610-E (Joint Utility Tier 3 Advice Letter to Request Approval of a Proposed Scope and Budget for a Vehicle-Grid Integration Emerging Markets and Technology Program Pursuant to D. 20-12-029 Ordering Paragraph 11)

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- 6) PG&E should work with Energy Division staff to ensure communications to customers within the Resilient Charging Pilot are clear that V2H equipment is different than unidirectional and ensure the survey of customers includes evaluation of whether customers are willing to pay the incremental cost to add V2H capability at their residence;
- 7) PG&E should work with Energy Division to ensure its evaluation of the Resilient Charging Pilot considers how the pilot could scale beyond PSPS events to unplanned outages as well;
- 8) PG&E should work with Energy Division and stakeholders to establish plans for future resiliency spending in support of the requirement in D.20-12-027 to spend up to 20 percent of the annual revenue on resiliency programs; and
- 9) PG&E should work with Energy Division staff to ensure that the Research and Innovation Fund Pilot does not overlap with any VGI Emerging Technology Program activities.



**Sidney Bob Dietz II**  
Director  
Regulatory Relations

Pacific Gas and Electric Company  
77 Beale St., Mail Code B13U  
P.O. Box 770000  
San Francisco, CA 94177

Fax: 415-973-3582

October 6, 2021

**Advice 6226-E-A**

(Pacific Gas and Electric Company ID U 39 E)

Public Utilities Commission of the State of California

**Subject: Supplemental: PG&E's 2021 Low Carbon Fuel Standard Implementation Plan**

**Purpose**

Pacific Gas and Electric Company (PG&E) has determined it necessary, prudent and consistent with the requirements included in D.20-12-027 to supplement Advice Letter (AL) 6226-E to edit the proposed program administration for the Resilient Charging Pilot to allow PG&E to issue a Request For Proposal to select a pilot implementer or to issue a direct award to a third-party to be the implementer. This change applies to Program #4: Resilient Charging Pilot in Section II.C.4 of Attachment 1.

The clean version of the revised attachment 1 of AL 6226-E is attached. This supplemental advice letter supersedes the original Advice Letter 6226-E in part. While Program #4: Resilient Charging Pilot in Section II.C.4 of Attachment 1 is being slightly amended, the rest of the contents of PG&E's 2021 Low Carbon Fuels Standard Implementation Plan contained in the original Advice Letter 6226-E remain unchanged. Attachment 2 includes the redline to show the changes in Attachment 1 from AL 6226-E.

**Protests**

Pursuant to GO 96-B, General Rule 7.5.1, PG&E requests to maintain the original protest and comment period designated in Advice 6226-E and not reopen the protest period.

**Effective Date**

PG&E is submitting this advice letter with a Tier 2 designation, which is the same tier designation as the original advice letter, Advice 6226-E. Pursuant to GO 96-B, General Rule 7.5.1, the submittal of a supplement, or of additional information at the request of the reviewing Industry Division, does not automatically delay the effective date of the advice letter. Therefore, PG&E respectfully requests that this supplemental advice

submittal become effective concurrent with original Advice Letter 6226-E, which is effective July 15, 2021.

**Notice**

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service list for Service List R.18-12-006. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process\_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter submittals can also be accessed electronically at: <http://www.pge.com/tariffs/>.

/S/

\_\_\_\_\_  
Sidney Bob Dietz II  
Director, Regulatory Relations

Attachments

cc: Service List R.18-12-006

**Attachments**

Attachment 1: 2021 Low Carbon Fuel Standard Implementation Plan

Attachment 2: Redline of Changes in 2021 Low Carbon Fuel Standard Implementation Plan

Attachment 3: Confidential Declarations and Matrix



# ADVICE LETTER SUMMARY

## ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: Pacific Gas and Electric Company (ID U39 E)

Utility type:

- ELC       GAS       WATER  
 PLC       HEAT

Contact Person: Annie Ho

Phone #: (415) 973-8794

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: AMHP@pge.com

### EXPLANATION OF UTILITY TYPE

ELC = Electric      GAS = Gas      WATER = Water  
 PLC = Pipeline      HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 6226-E-A

Tier Designation: 2

Subject of AL: Supplemental: PG&E's 2021 Low Carbon Fuel Standard Implementation Plan

Keywords (choose from CPUC listing): Compliance

AL Type:  Monthly  Quarterly  Annual  One-Time  Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #:

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL:

Confidential treatment requested?  Yes  No

If yes, specification of confidential information: See Attachment 3

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information: Suncheth Bhat; (415) 973-3299

Resolution required?  Yes  No

Requested effective date: 7/15/21

No. of tariff sheets: N/A

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed<sup>1</sup>: N/A

Pending advice letters that revise the same tariff sheets: N/A

<sup>1</sup>Discuss in AL if more space is needed.

**Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:**

CPUC, Energy Division  
Attention: Tariff Unit  
505 Van Ness Avenue  
San Francisco, CA 94102  
Email: [EDTariffUnit@cpuc.ca.gov](mailto:EDTariffUnit@cpuc.ca.gov)

Name: Sidney Bob Dietz II, c/o Megan Lawson  
Title: Director, Regulatory Relations  
Utility Name: Pacific Gas and Electric Company  
Address: 77 Beale Street, Mail Code B13U  
City: San Francisco, CA 94177  
State: California Zip: 94177  
Telephone (xxx) xxx-xxxx: (415)973-2093  
Facsimile (xxx) xxx-xxxx: (415)973-3582  
Email: [PGETariffs@pge.com](mailto:PGETariffs@pge.com)

Name:  
Title:  
Utility Name:  
Address:  
City:  
State: District of Columbia Zip:  
Telephone (xxx) xxx-xxxx:  
Facsimile (xxx) xxx-xxxx:  
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Section 6254(k), and Decisions 06-06-066 and 08-04-023

# **ATTACHMENT 1**

## **2021 Low Carbon Fuel Standard Implementation Plan**

**CONFIDENTIAL: Contains Market Sensitive Information Protected Under Public  
Utilities Code Section 454.5(g), Government Code Section 6254(k), and Decisions  
06-06-066 and 08-04-023**

June 15, 2021

# 2021 LCFS IMPLEMENTATION PLAN

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**EXECUTIVE SUMMARY**

Pursuant to Ordering Paragraph (OP) 3 of Decision (D.) 20-12-027 (LCFS Holdback Decision), Pacific Gas and Electric Company (PG&E) hereby submits its Low Carbon Fuel Standard (LCFS) Implementation Plan.

**A. Background**

PG&E generates credits in the LCFS program for supplying low-carbon transportation fuels, including electricity and compressed natural gas (CNG). The revenue from the sales of these credits must be returned to PG&E customers, subject to requirements on the use of LCFS proceeds from the California Air Resources Board (CARB) and California Public Utilities Commission (CPUC). The LCFS proceeds represent a unique opportunity to support transportation electrification and other low-carbon fuels without using ratepayer funding, and PG&E’s proposed programs are designed to fill gaps in the market while meeting both CARB and CPUC requirements.

**B. Electric Revenue Program Portfolio**

PG&E is proposing five electric LCFS programs. Four of these are “holdback programs,” funded by the 33% of remaining residential base credit proceeds after funding the California Clean Fuel Reward (CCFR) program, plus credits generated by forklift charging. These programs must support an increasing focus on equity communities as well as a provide support, up to a cap, for resiliency efforts. PG&E’s four holdback programs for this initial implementation plan are shown in Table 1.

**Table 1: Summary of PG&E Electric Holdback Programs**

Program	Description	Program Duration	Total Cost
Pre-Owned Electric Vehicle (EV) Rebate	Provide a post-purchase rebate for pre-owned EVs, with a \$1000 base rebate and additional \$3000 for income-qualified customers	2022-2024	\$86.55M
Multi-Unit Dwelling (MUD)/Small Business Direct Install	Install low-power chargers (Level 1 and Level 2) at small MUDs and small businesses that have excess capacity on panel	2022-2024	\$25.23M
Residential Charging Solutions	Educational resources and financial support to install EV charging at homes	2022-2024	\$7.26M
Resilient Charging	Third-party software to communicate with customers and actively manage EV charging for the customer prior to a Public Safety Power Shutoff event to ensure they have enough charge in case of emergency	2022	\$4.76M

One program, shown in Table 2, is funded by non-residential credit revenues. These are proceeds from PG&E-owned charging stations at its offices and in the EV Charge Network (EVCN) program. This program does not need to meet the same equity and resiliency requirements that holdback programs must meet.

**Table 2: Summary of PG&E Electric Non-Residential Credit Revenue Programs**

Program	Description	Program Duration	Annual Cost
Research and Innovation Fund	Fund small proof-of-concept pilots and research studies	2022+	\$0.16M/year

**C. Gas Revenue Program**

PG&E plans to continue its CNG revenue return program, which was described in PG&E’s 2015 LCFS implementation plan. This program is funded from the proceeds of credits generated by fleet and residential customers fueling vehicles at PG&E-owned CNG stations. As part of a pilot started in late 2019, all PG&E CNG stations are being supplied with 100% renewable natural gas (RNG). Table 3 shows a summary of PG&E’s gas revenue return program.

**Table 3: Summary of PG&E Gas Revenue Programs**

Program	Description	Program Duration	Total Cost
RNG Fuel Credit	Annual on-bill credits that divide the annual LCFS revenue between customers based on their pro-rata share of CNG usage.	2017+	██████████ (2021)

## I. LCFS CREDIT GENERATION, SALES, ACCOUNTING, AND FORECASTING

This section discusses PG&E's requirements and processes related to the CARB LCFS program. PG&E generates credits from several electric and gas sources, sells those credits, holds the proceeds within designated balancing accounts, and then returns the revenue to customers. Each of these is described in more detail below.

### A. Credit Generation

PG&E has voluntarily opted-in to the LCFS program on behalf of its customers who use transportation fuels with carbon intensities below CARB's targets.<sup>1</sup> Under the current LCFS regulation, PG&E receives LCFS credits from CARB based on those customers' usage of low carbon fuels. PG&E generates credits from the use of electricity and CNG as a transportation fuel as described in more detail in the following sections.

#### 1. Electric Credits

As an electric distribution utility in California, PG&E has been receiving LCFS credits since 2011 for customers who charge their EVs in its service territory. Currently, PG&E generates electric credits from several different sources of EV charging that occurs within the service territory:

- Residential EV charging – including separately-metered EV charging and estimated residential EV charging
- Non-residential EV charging – including PG&E workplace EV charging and EV charging at certain sites in EVCN
- Electric forklift charging
- “Non-opt-in” Utilities’ estimated residential EV charging

CARB calculates the number of LCFS credits generated for a given quantity of electricity consumed as a transportation fuel and deposits those credits into PG&E's LCFS account. On a quarterly basis, PG&E submits EV energy consumption information to CARB for the purpose of calculating and generating LCFS credits. For residential EV charging, PG&E submits actual EV energy consumption for separately-metered EV charging in PG&E's service territory, based on actual metered data from customers on an active separately-metered EV rate.<sup>2</sup>

In addition to the credits generated through residential EV charging, PG&E also generates electric credits through the non-residential metered charging. This includes PG&E workplace EV charging that occurs on EV charging equipment that PG&E owns for its fleet vehicles, employee charging, as well as EV charging at chargers that PG&E owns in the EVCN Program (“Charge Sponsor sites”). On a quarterly basis, PG&E submits actual EV energy consumption for non-residential metered EV charging in PG&E's service area, based on metered data for the chargers.

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<sup>1</sup> 17 CCR § 95480 et seq.; D.14-12-083, p.6.

<sup>2</sup> Currently, the active separately-metered EV rate is EV-B.

PG&E has also received credits for the estimated electric forklift charging that occurs in its service territory and credits for estimated residential EV charging in service territories of “non-opt-in” utilities to the LCFS program.<sup>3</sup> Both are calculated by CARB and deposited into PG&E’s account.

A forecast of PG&E’s electric credit generation can be found in the annual LCFS Forecast Advice Letter, most recently submitted in September 2020.

## **2. Gas Credits**

From 2011-2019, PG&E generated gas credits for CNG fuel sold to the public and used by PG&E’s own fleet at PG&E’s CNG stations. PG&E submitted CNG fuel consumption information to CARB quarterly for the purposes of generating gas credits.

In December 2019, PG&E contracted with a RNG vendor to supply RNG to PG&E’s CNG stations for three years. Under the contract, the vendor supplies RNG to the stations, handles the reporting of RNG consumption to CARB for LCFS credits, sells the credits, and shares the revenue with PG&E.

A forecast of PG&E’s RNG credit generation can be found in the annual LCFS Forecast Advice Letter, most recently submitted in September 2020.

## **B. Credit Sales Procedures**

The Commission authorized electric and natural gas utilities that voluntarily participate in the LCFS regulation to sell LCFS credits according to the parameters and restrictions set forth in D.14-05-021, beginning upon the Commission’s approval of Advice Letter 3575-G/4604-E on August 7, 2015.<sup>4</sup>

PG&E provides the following information regarding its plans for the sale of LCFS credits pursuant to Items 1 through 3 of Appendix A: Tier 2 Advice Letter Filing Requirements in D.14-12-083, as well as information requested in the discussion sections of D.14-12-083.

### **1. Limits and Timing of LCFS Credit Sales**

The CPUC has established two restrictions for the sales of LCFS credits per D.14-05-021. First, the Utility may sell no more than the credits that have been provided by CARB. Second, the credits may only be sold through competitive solicitations or bilateral transactions presented by a broker. PG&E proposed and the CPUC approved the following additional limits in Advice Letter 3575-G/4604-E:

- The Utility will sell credits over time at market prices to avoid trying to time the market;
- The Utility will sell credits at market prices and these transactions will be deemed per se reasonable;
- The Utility will only consider brokers registered with the Commodity Futures Trading Commission; and

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<sup>3</sup> Non-opt-in credits are credits associated with EV residential charging in areas served by utilities not participating in the LCFS program. CARB estimates the total credits and deposits a percentage to each IOU. IOUs are tasked with monetizing these credits and transferring the revenue to the statewide point-of-purchase program, the California Clean Fuel Reward (CCFR).

<sup>4</sup> D.14-05-021, Ordering Paragraph 1; Implementation Plan for the Sale of Low Carbon Fuel Standard Credits and Return of Revenue, pursuant to OPs 2 and 3 of D.14-12-083 and OPs 2 and 3 of D.14-05-021.

- The Utility will follow its standard credit and collateral processes.

**2. Compliance with the California Clean Fuel Reward Governance Agreement Requirements**

In 2018, CARB approved amendments to the LCFS regulation, effective January 4, 2019, which created the framework for the statewide point-of-purchase program, the California Clean Fuel Reward (CCFR), and requires large Investor Owned Utilities (IOUs) to contribute 67% of residential credits to the program.<sup>5</sup> PG&E opted into the CCFR with the signing of the CCFR Governance Agreement in February 2020.<sup>6</sup>

PG&E implemented changes to its credit revenue tracking in preparation for the launch of the statewide program in November 2020. Upon program launch, PG&E contributed 67% of the revenue generated from the sale of electric credits generated from residential EV charging to the program and continues to make quarterly payments to the program in compliance with CARB’s LCFS regulation. PG&E is also required to contribute 100% of the credits and revenue from the non-opt-in utilities to the program. The remaining 33% of residential credits, referred to as “holdback credits,” will serve as one of the funding sources for four of the LCFS revenue return programs discussed in later sections. PG&E tracks the revenue amount for each category by applying a percentage split to the revenue generated from each credit sale transaction. A summary of PG&E’s electric credit generation and CCFR contribution requirement is shown in Table 4.

**Table 4: Electric Credit Generation**

Fuel Type	Credit Source	Percentage of Credit Revenues Sent to the CCFR
Electricity	Separately-metered residential EV fueling	67%
Electricity	Estimated residential EV fueling	67%
Electricity	“Non-opt-in” estimated residential EV fueling	100%
Electricity	PG&E workplace EV fueling	0%
Electricity	EVCN Charge Sponsor sites EV fueling	0%
Electricity	Electric Forklifts	0%

**C. Balancing Accounts**

The CPUC authorized electric and natural gas utilities selling LCFS credits to establish balancing accounts to track LCFS credit revenue<sup>7</sup> and approved PG&E’s proposal to create electric and natural gas LCFS revenues subaccounts in its existing Greenhouse Gas Revenue Balancing Account (GHGRBA) and Gas Programs Balancing Account (GPBA), respectively.<sup>8</sup> The purpose of these subaccounts is to track and record the proceeds from the sale of consigned LCFS credits, any approved program costs, and the LCFS revenues returned to customers.

<sup>5</sup> 17 CCR § 95483 (c)(1)(A).

<sup>6</sup> PG&E Advice Letter 5526-E - [https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC\\_5526-E.pdf](https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC_5526-E.pdf)

<sup>7</sup> D.14-05-021, Ordering Paragraph 7.

<sup>8</sup> Implementation Plan for the Sale of Low Carbon Fuel Standard Credits and Return of Revenue, pursuant to OPs 2 and 3 of D.14-12-083 and OPs 2 and 3 of D.14-05-021.

Each LCFS Holdback and Non-Holdback Program will have separate order numbers within the GHGRBA account to track program spend. Specific costs for each program (e.g. administration, incentive payments) will also be recorded separately to track contribution toward compliance requirements.

## **D. Revenue Return Forecast**

Per Ordering Paragraph 5 of D.14-12-083, PG&E submits annual Advice Letters providing a forecast of LCFS revenue return program activities for the following year for approval by the Commission (Annual LCFS Forecast Advice Letter). In September 2020, PG&E submitted its forecast of revenue return for PG&E's existing LCFS programs for calendar year 2021. This was prior to recent regulatory changes regarding the use of the LCFS revenue and therefore the revenue return may be different than what was forecasted in order to comply with the recent regulatory requirements. PG&E will continue to report historical LCFS program spend to the CPUC in the Annual Report submitted in April of each year. PG&E will submit its forecast for calendar year 2022, which will include the forecast for the new programs proposed here once approved, in September 2021.

For the most updated forecast of revenue return for PG&E's LCFS programs, please refer to the Annual LCFS Forecast Advice Letter, most recently submitted in September 2020.

## **II. REVENUE RETURN TO ELECTRIC CUSTOMERS**

PG&E provides the following information regarding its plans for the return of revenue to eligible electric customers pursuant to Item 6.a through 6.i of Appendix A: Tier 2 Advice Letter Filing Requirements in D.14-12-083, the information requested in the discussion sections of D.14-12-083, as well as the information required in D. 20-12-027.

### **A. Summary of Changes to PG&E's 2015 LCFS Implementation Plan**

#### **1. Sunset of PG&E's Clean Fuel Rebate Program**

PG&E's 2015 Implementation Plan proposed to return revenue from residential electric credits through a one-time rebate to qualifying residential electric customers based on ownership of a qualifying EV. With CPUC approval, PG&E administered the Clean Fuel Rebate Program from 2017 through 2020, issuing rebates to customers with qualifying EVs and proof of valid vehicle registration. There was a limit of one rebate per vehicle identification number during the program. Over the duration of the program, PG&E issued over 154,000 rebates and returned a total of \$100 million to customers.

PG&E's Clean Fuel Rebate program closed to new applications on December 31, 2020. With the launch of the statewide CCFR program in November 2020, PG&E's program to support new EV purchases is no longer necessary. In line with CARB and CPUC guidance<sup>9</sup> PG&E is proposing new LCFS programs to replace the Clean Fuel Rebate program in this Implementation Plan.

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<sup>9</sup> D.20-12-027 pp. 26

## 2. New CARB and CPUC Revenue Return Requirements

In addition to amendments to create the statewide CCFR, CARB approved amendments to the LCFS regulation in 2019, effective July 1, 2020,<sup>10</sup> which established restrictions on the use of revenue from the sale of holdback credits, including:

- An increasing annual percentage of holdback credit proceeds<sup>11</sup> required to be used to support specifically defined equity customers and communities<sup>12</sup>
- A specified list of projects that may contribute toward the equity proceed requirements<sup>13</sup>
- A cap on the administrative costs to support the development and implementation of equity projects not to exceed 10 percent of total spending on equity projects.

The LCFS Holdback Decision that requires the development of this Implementation Plan, also established additional requirements for the holdback credit revenue including, most notably:

- An increasing annual percentage of holdback credit expenditures<sup>14</sup> required to be used to support specifically defined equity customers and communities<sup>15</sup>
- A set annual maximum percentage of holdback credit proceeds to be spent on specifically defined resiliency projects
- The pooling of forklift credit revenue with holdback credit revenue
- Additional informational and operational questions about the LCFS programs to be answered in the Implementation Plan

The annual holdback credit revenue percentage requirements for CARB and CPUC are summarized in the table below:

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<sup>10</sup> 17 CCR § 95483 (c)(1)(A)(6), pp 34.

<sup>11</sup> For the purposes of this Implementation Plan, credit proceeds are defined as the revenue generated from the sale of any holdback credits in that calendar year

<sup>12</sup> 17 CCR § 95483 (c)(1)(A)(6)(a), pp 35, states that “Effective January 1, 2022, at least 30 percent in year one, 40 percent in year two, and 50 percent in subsequent years of holdback credit proceeds must be used to support transportation electrification for the primary benefit of or primarily serving disadvantaged communities and/or low-income communities and/or rural areas or low-income individuals eligible under California Alternative Rates for Energy (CARE) or Family Electric Rate Assistance Program (FERA) or the definition of low-income in Health and Safety code section 50093 or the definition of low-income established by a POU’s governing body.”

<sup>13</sup> 17 CCR § 95483 (c)(1)(A)(6)(a), pp 35, provides descriptions of six possible equity projects, such as “investment in public EV charging infrastructure and EV charging infrastructure in multi-family residences,” “multilingual marketing, education, and outreach,” or “additional rebates and incentives for low-income individuals beyond existing local, federal and State rebates and incentives.” Projects can be developed with local environmental justice advocates, community-based organizations, and local municipalities that are not on the specified list but require approval by CARB’s Executive Officer.

<sup>14</sup> For the purposes of this Implementation Plan, expenditures are defined as any holdback credit revenue that is spent as part of a holdback program in the calendar year

<sup>15</sup> In addition to the equity communities defined as part of CARB’s LCFS regulation, D.20-12-027 includes “a community with median household income less than 80% of the statewide average, a community in which at least 75% of public schools students in the project area are eligible to receive free or reduced-price meals under the National School Lunch Program, and a community located on lands belonging to a federally recognized CA Indian tribe” as eligible for LCFS holdback expenditure on equity projects (pp. 12-13).

**Table 5: Holdback Credit Revenue Requirements**

Requirement	2021	2022	2023	2024	2025
CARB Equity % (based on proceeds)	N/A	30%	40%	50%	50%
CPUC Equity % (based on expenditure)	35%	45%	55%	75%	75%
CPUC Resiliency % (based on proceeds)	<20%	<20%	<20%	<20%	<20%

Per D.20-12-027, PG&E must develop and propose programs for the use of the LCFS holdback credit revenue to comply with the annual requirements in both CARB’s LCFS regulation as well as the requirements in that decision. In this 2021 LCFS Implementation Plan, PG&E proposes programs to comply with the 2022 annual requirements and will develop and propose additional programs in the future to comply with future annual requirements.

**B. Electric Revenue Program Portfolio Strategy**

PG&E’s LCFS electric credit revenues offer a unique opportunity to develop and quickly implement programs to address barriers to EV adoption across all vehicle and customer segments in support of California’s ambitious and broad goals related to zero-emission vehicles in a manner that does not require additional utility ratepayer funding.<sup>16</sup> PG&E has developed a holistic strategy for the use of LCFS revenue, to be complimentary with the Utility’s existing and planned transportation electrification (TE) efforts including, but not limited to, customer TE infrastructure and non-infrastructure program and pilot offerings; EV-specific rates; marketing, education, and outreach; stakeholder engagement; and the Transportation Electrification Framework (TEF). Per the requirements in Section 3.11 of D. 20-12-027, PG&E has developed guiding principles and a program development process to account for and be complimentary to the Utility’s TE portfolio. The following subsections describe the general LCFS program development process and the overarching structure of PG&E’s LCFS Electric Revenue Program Portfolio.

**1. Guiding Principles**

All customer segments continue to face the well-known barriers to EV adoption: lack of access to charging infrastructure, availability and affordability of suitable vehicles, and insufficient education and awareness. LCFS offers a unique opportunity to use the revenue generated by users of clean transportation fuel to continue to address those barriers in innovative and strategic ways, especially as the market continues to change. PG&E intends to use the LCFS revenue to fund programs and pilots that are shorter in duration (five years or fewer). This approach allows PG&E to focus on generating lessons learned that can be quickly leveraged for larger-scale programs and to refine future pilot proposals.

PG&E’s overarching goal is that LCFS-funded program design is nimble and flexible, enabling PG&E to quickly incorporate lessons learned into existing and future programs, and pivot to address emerging EV

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<sup>16</sup> Governor Newsom’s Executive Order N-79-20 – <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>

market needs. Under this overarching goal, PG&E has developed four principles that guide program design and evaluation:

- Maximize Benefits to Utility Customers
- Support EV Awareness & Adoption
- Advance the State’s Equity, Resiliency, and Climate Goals
- Efficiently Use Funding

Together, these guiding principles ensure programs are supporting customers, advancing transportation electrification, and fulfilling the intent and requirements of CARB and CPUC regulations for the use of the revenue. Some examples of how the principles support specific decision requirements are shown in the table below:

**Table 6: Guiding Principles for LCFS Program**

Guiding Principles	Provide flexibility, incorporate lessons learned and pivot to address EV Market Needs			
	Maximize Benefits to Utility Customers	Support EV Awareness & Adoption	Advance State’s Equity, Resiliency and Climate Goals	Efficiently Use Funding
Program Criteria from LCFS Decision 20-12-027	Benefit only current and future EV drivers (3.11)	Address barrier to TE/equity/resiliency (3.11)	Demonstrate input from Environmental Justice (EJ) and Community Based Organizations (CBOs) (3.11)	Collect data to evaluate program effectiveness (3.11)
	Address gaps in utility program offerings (3.11)	Coordination with IOUs on second-hand vehicle rebate program (3.11)	Demonstrate how equity projects will benefit equity communities (3.11)	Demonstrate cost-effectiveness for battery swap program (3.11)
	Demonstrate coordination with local entities for resiliency projects (3.10)		Demonstrate how expenditure supports resiliency (3.11)	Align resiliency projects with other resiliency/Vehicle Grid Integration (VGI) efforts (3.10)

*Note: The specific section in D.20-12-027 where the criteria can be found is included in parentheses*

PG&E will use these guiding principles in the prioritization and design of programs that effectively support EV adoption and address market needs. PG&E will also use the principles to develop a portfolio of programs that is diverse in the barriers it addresses, and the customer segments it serves.

**2. Program Development Process**

PG&E has created a framework for ongoing LCFS program development that incorporates internal and external stakeholder feedback at various stages of the process. Stakeholder engagement is critical to understanding the needs of the customers to be served by the programs, especially those in equity

communities. PG&E utilized the following process in the development of the program proposals in this Implementation Plan:

- **Ideation:** PG&E works with internal and external stakeholders to identify additional barriers to TE, perform gap analyses, and solicit program ideas to address specific market and customer needs. This involves engagement with community-based organizations (CBOs), environmental justice (EJ) groups, market vendors, state agencies, local entities, utilities, and others.
- **Prioritization:** PG&E's Clean Energy Transportation (CET) team develops program sketches and presents them to a diverse internal Steering Committee, with members from the Clean Energy Transportation, Grid Planning, Customer Resiliency, Vehicle Grid Integration (VGI), and Income Qualified and Disadvantaged Community Programs teams, to assess program sketches based on guiding principles and evaluation criteria and prioritize programs for development.
- **Development:** PG&E's CET team develops full program proposals, designing the goals, scope, and budget with input from key internal and external stakeholders, including similar external stakeholders as identified in the ideation stage.
- **Finalization and Filing:** Final program design is refined with continued stakeholder input and finalized with PG&E executive approval. PG&E's CET and Regulatory Affairs teams develop the Tier 2 Advice Letter for filing of new program proposals to update the Implementation Plan.

PG&E will continue to leverage this process for future program proposals.

### **3. Portfolio Structure**

PG&E's LCFS Electric Program Portfolio will consist of LCFS overhead operations, pilots and programs, and Marketing, Education, and Outreach (ME&O) coordinated with the Utility's overall TE ME&O. Each of these elements are described in more detail in the sections below.

#### **Overhead Operations**

The Utility must maintain ongoing business operations, like program management and credit reporting and sales, to generate revenue from LCFS credits. A brief description of each type of overhead cost is provided:

- **Program Management:** Personnel to manage PG&E's LCFS program participation, including LCFS reporting to CARB for credit generation, LCFS reporting to CPUC for forecasted and historical revenue and expenditures, development of CPUC LCFS Implementation Plan, support for the statewide California Clean Fuel Reward, and LCFS regulatory coordination.
- **Credit Sales:** Personnel to implement PG&E's sale of Electric Credits.

PG&E must maintain these essential functions to generate LCFS revenue to return to customers via the CCFR and approved programs. Therefore, PG&E will track and report these activities separate from any specific program administrative cost. More detail on cost of overhead operations is included in the Annual LCFS Forecast Advice Letter and annual revenue report.

#### **Programs**

LCFS revenue is an important tool to support the State's ambitious goals and benefit customers in concert with the Utility's ratepayer TE programs and activities. As a result, the LCFS programs are designed to be closely aligned with the utility's overarching TE strategy to support all customer segments as will be

described in the upcoming Transportation Electrification Plans (TEPs) to be developed and filed once final guidance is provided by the CPUC in an adopted TEF.

The programs will fall into one of two categories depending on the source of credit revenue used to fund the program:

- **Holdback Programs** – funded with holdback credit revenue and electric forklift credit revenue. These are subject to the revenue requirements listed in Table 2 and other specific holdback program requirements listed in D.20-12-027 and in CARB’s LCFS regulation.
- **Non-Holdback Utility Programs** – funded with revenue from non-residential EV charging credits including PG&E workplaces, PG&E-owned chargers in EVCN, and other credit sources that may be generated in the future. These are subject to the LCFS revenue requirements in CARB’s LCFS regulation.

The programs may be of varying lengths and the Utility will continue to propose new programs for the portfolio, via a Tier 2 advice letter, to address emerging customer needs and meet the LCFS Holdback Decision requirements.

### **Marketing Education & Outreach**

Per Section 3.15 of the LCFS Holdback Decision, the utilities are to describe how their LCFS-related ME&O efforts are leveraged across their TE portfolios and demonstrate that there are no duplicative efforts. As described in each program proposal in the section below, PG&E will utilize a variety of ME&O approaches in order to effectively reach the customers each program aims to serve. Each program will include:

- A general ME&O plan, targeted towards all eligible PG&E electric customers, and
- An equity-focused ME&O plan, targeted towards specific underreached and/or hard-to-serve-equity customers eligible for the program.

The ME&O strategies may be executed by the Utility, the third-party program implementer, a CBO, or a combination of all three.

#### *General ME&O*

PG&E takes a customer-first approach to outreach and starts with understanding the key phases of the customer journey – vehicle research, dealership visits, vehicle purchase and charging station installation, post-purchase rebates, cost-saving programs, or ongoing EV operations and maintenance. For the residential customer this includes:

- **Explore:** Potential EV customers that are researching vehicle purchase (EVs may or may not be currently considered)
- **Dealership Visits (test drives):** Refining vehicle search for a few brands and driving them to help inform decision.
- **Vehicle Purchase/Charging Station Installation:** Vehicle purchase followed by charging installation.
- **Post-Purchase:** Applying for rebates and/or enrolling in cost savings programs such as an EV rate.

This understanding informs where outreach for each individual program is most relevant to the customer and how best to reach the intended program objective. PG&E, in partnership with third-parties as appropriate, will develop a program-specific general ME&O plan for eligible equity and non-equity customers to reach program goals. This will include outreach to hard-to-reach customers. Plans will employ a variety of tactics including:

- **Newsletter inclusion:** PG&E has ongoing digital outreach to residential and non-residential customers through monthly newsletters and packaged content by industry segment enabling LCFS program promotion opportunities.
- **Email:** Multi-touch email campaigns to engage target audiences on key program details, identify key decision makers, and drive customer acquisition online.
- **Social Media:** Social media will include targeted paid posts to key customer segments helping to promote program participation.
- **Other Messaging:** Integrated messaging with other utility programs, resources and tools.

All ME&O will be in support of a specific LCFS program and will not be used for general EV customer education. Messaging and outreach strategies will be focused to all customers eligible for a particular program, regardless of their load serving entity. More detail on the general ME&O plan for each program is included in Section C below.

#### *Equity-focused ME&O*

PG&E is committed to increasing awareness of and participation in the LCFS programs by equity customers who are not being reached through traditional channels. To that end, in addition to the targeted outreach to the hard-to-reach customers done by the utility and/or implementer, PG&E plans to formally and informally partner with CBOs for thought-partnership on new program design and for conducting outreach and marketing to equity customers and communities about the specific LCFS programs. PG&E plans to utilize a Request For Proposal (RFP) process to contract with a set of CBOs across the service territory to support outreach to equity customers and communities about all of the holdback programs that are applicable to them. The contracts with the CBOs would be at a portfolio level instead of an individual program level and would be coordinated with current outreach to equity customers and CBO partnerships in existing ratepayer EV programs, such as Empower EV, as well as non-EV programs. This CBO partnership strategy must also be coordinated with any statewide efforts to work with CBOs including the CCFR and Access Clean California to further educate hard-to-reach customers and minimize administrative burden to CBOs.

In discussions about the LCFS programs, many CBOs raised the concern that it is ineffective to educate customers about a single program or support only one aspect of the TE journey for customers. Instead, they emphasized the need to be able to educate hard-to-reach customers about all available incentives and provide support for every step of the customer's journey. As a result, contracting with CBOs on an individual programmatic level is inefficient, as it would limit the CBO to supporting only that program and inhibits a holistic approach. Partnering at the portfolio level allows CBOs to market various programs and resources based on the needs of the specific customer and enables customers to receive end-to-end support across the lifecycle of their purchase (e.g., financial support for charging installation, vehicle purchase and help enrolling in the right rate to keep fuel costs low). In addition, a portfolio-level partnership increases the coverage of customers across the service territory. It also streamlines the number

of contracts that the CBO needs to manage for their ME&O efforts for the various LCFS programs, and builds in the opportunity to include outreach for other non-LCFS programs (funded by non-LCFS revenue) in the future. PG&E will continue engaging with all interested CBOs to support program design, implementation and outreach but recognizes the need for formal paid contracts with CBOs to achieve a robust and comprehensive ME&O approach to equity customers for the LCFS portfolio.

The scope and design of PG&E's partnership with CBOs is dependent on the CPUC's approval of the 2021 LCFS Implementation Plan program proposals. Upon approval, PG&E will develop a coordinated approach to selecting the CBOs for partnership and determining specific outreach strategies for each program.

### **Evaluation**

The ability to constantly assess program impacts and adjust approaches based on market realities is a hallmark of how PG&E will implement these programs. To this end, PG&E has included a 2% evaluation budget for each program. This will be used to regularly collect and analyze data to assess each program's performance, barriers, customer pain points, and opportunities. In addition, PG&E will be strategic with this funding based on the specific needs and challenges of each program. For example, PG&E might consider a process evaluation above and beyond what is conducted internally to learn about what program procedures and requirements could be improved, or conduct a study that explores why enrollment among a particular customer segment was poor.

Each pilot program described below includes a short discussion on the types of data that will be collected to aid in evaluation efforts. PG&E will determine the specific evaluation needs of each program once the programs have been launched and the program team can observe opportunities for study.

### **4. Portfolio Budget**

The LCFS portfolio budget will consist of the annual total budget for each program in the portfolio for the number of years that each program is proposed to have expenditures. The portfolio budget is based on PG&E's internal LCFS revenue forecast for the program implementation years. The revenue forecast uses the same methodology for LCFS credit prices and residential and non-residential EV charging assumptions as what is used for PG&E's Annual LCFS Forecast Advice Letter.<sup>17</sup>

The portfolio budget is subject to change based on adjustments to individual program design during the program set-up phase or implementation as explained in the program proposals. Changes to the LCFS market, including the LCFS credit price, may also impact the budget. PG&E will not spend any LCFS revenue that has not already been generated and deposited in the balancing account and therefore the program budgets may need to be adjusted if the forecasted revenue is impacted.

PG&E will continue reporting on the LCFS revenue expenditures from the LCFS portfolio in the Annual LCFS Forecast Advice Letter and the annual LCFS Revenue Report per the reporting obligations established by D.14-05-021, D.14-12-083, and Resolution E-5015. PG&E will also update the portfolio budget in the Implementation Plan any time new programs are proposed and the Plan is updated via a Tier 2 AL.

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<sup>17</sup> Details on the assumptions for the forecast can be found in PG&E's Annual LCFS Forecast AL.

### C. 2021 LCFS Electric Program Portfolio

PG&E provides information regarding its plans for the return of revenue to eligible electric customers pursuant to Item 6.a through 6.i of Appendix A: Tier 2 Advice Letter Filing Requirements in D.14-12-083, the discussion sections of D.14-12-083, as well as the information requested in the discussion sections of D.20-12-027.

#### 1. Overview of Programs

Pursuant to 3.11 of D. 20-12-027, PG&E proposes five LCFS programs – four Holdback Programs and one Non-Holdback Program – to benefit current and future EV drivers. PG&E provides a summary of the program proposals, each of which are detailed in the sections below.

**Table 7: PG&E LCFS Program Proposals**

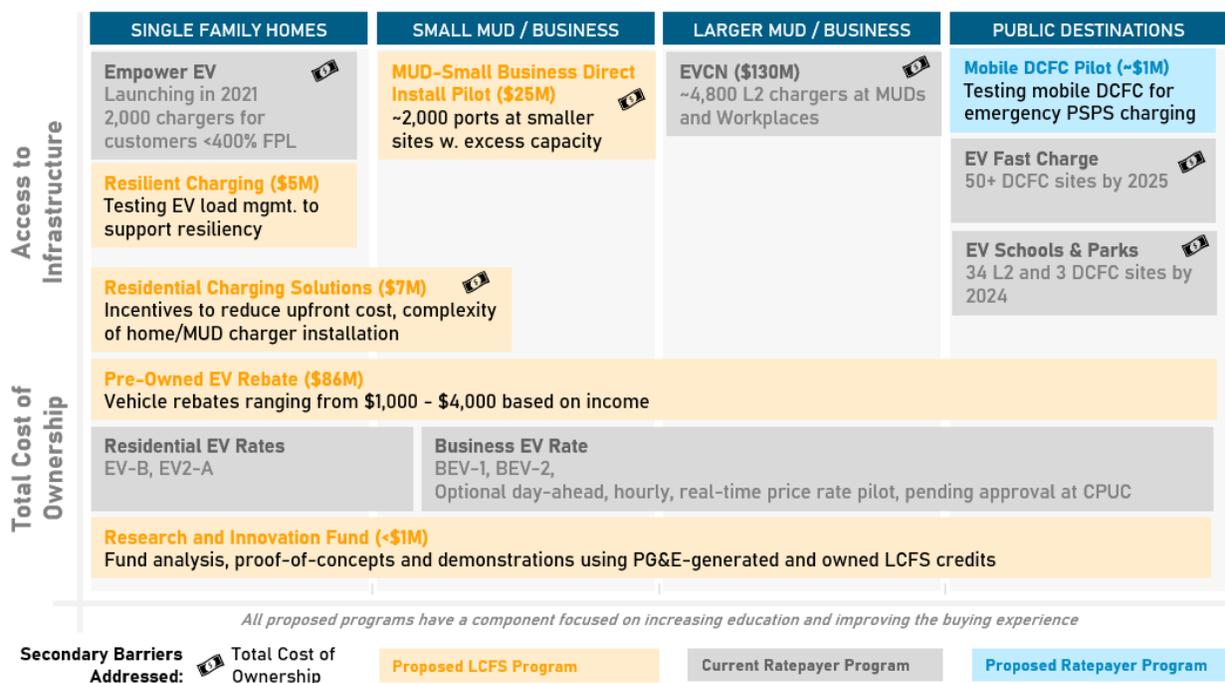
	Program/Pilots	Barrier(s) Addressed	Estimated Program Duration	Estimated Total Budget
Holdback Programs	Pre-Owned EV Rebate Program	Total Cost of Ownership	2022-2024	\$86.55M
	MUD/Small Business Direct Install Pilot	Access to Infrastructure and Education and Awareness	2022-2024	\$25.23M
	Residential Charging Solutions Pilot	Access to Infrastructure, Total Cost of Ownership, and Education and Awareness	2022-2024	\$7.26M
	Resilient Charging Pilot	Access to resilient Infrastructure	2022	\$4.76M
Non-Holdback Program	Research and Innovation Fund Pilot	All via Research and Development	2022+	\$0.16M/year

*Note: program duration timeframe is dependent on CPUC approval of the 2021 LCFS Implementation Plan*

The 2021 proposed Holdback Programs are designed to complement current ratepayer programs and provide a multi-faceted set of solutions to support various aspects of transportation electrification for light-duty vehicles and residential customers. The barriers to TE for residential customers are well known and the proposed programs assist in filling in existing gaps in the Utility program offerings as well as build off and further the impact of existing utility and State programs.

The 2021 proposed Non-Holdback Programs are not subject to the same requirements in the LCFS Holdback Decision as the Holdback Programs but must still be developed and executed in support of EV customers. PG&E plans to use these programs to support early stage research and development in the TE space to enable better, faster, and more innovative solutions for our customers and for the grid.

Figure 1: PG&E’s Residential/Light-Duty Vehicle Portfolio



The current proposed portfolio of LCFS programs is focused on supporting light-duty vehicles primarily driven by residential customers to effectively address the gaps in support in existing programs. PG&E plans to propose future LCFS programs to support the medium and heavy-duty vehicle sector and commercial customers more generally. The medium- and heavy-duty vehicle market is more nascent than the light-duty vehicle sector and the transportation needs of commercial customers and barriers to electrifying are more heterogenous. In 2021, PG&E is undertaking extensive research to better understand and address electrification barriers in medium- and heavy-duty vehicle customer segments and will take the time to work closely with stakeholders to design effective programs to support this customer segment in future implementation plans. In addition, PG&E will design programs with an increasing focus on equity and plans to engage with equity stakeholders, including Tribes and Assembly Bill (AB) 617 communities, to specifically address the needs in their communities.

PG&E plans to update the 2021 LCFS Implementation Plan in 2022 to propose a new resiliency program and may include additional program proposals as well. PG&E will propose additional LCFS programs as existing LCFS programs sunset and as customer needs emerge.

**2. Proposed 2021 LCFS Portfolio Budget**

PG&E has developed an approximate budget for the 2021 LCFS Portfolio pursuant section 3.11 in D. 20-12-027. As mentioned previously, any LCFS revenue that has not already been generated and deposited in the balancing account, and therefore the program budgets, may need to be adjusted if the forecasted revenue is impacted.

PG&E has developed these programs and budgets based on market analysis, program design best practices, and stakeholder engagement. However, PG&E is aware that it can only offer these programs to

customers and encourage their participation through effective ME&O – it cannot control customer interest, participation, or other market factors that may influence participation (e.g. economic downturns). Therefore, the budgets of the individual programs may be adjusted within the overall portfolio budget to meet customer demand and market needs.

**Table 8: Estimated 2021 LCFS Portfolio Budget by Pilot (\$M)**

	Program/Pilots	2021	2022	2023	2024	2025	Total
Holdback Programs	Pre-Owned EV Rebate	\$0.15	\$24.44	\$28.34	\$32.68	\$0.94	\$86.55
	MUD/Small Business Direct Install	\$0.05	\$6.42	\$9.01	\$9.06	\$0.69	\$25.23
	Residential Charging Solutions	\$0.05	\$1.75	\$2.68	\$2.68	\$0.09	\$7.26
	Resilient Charging	\$0.10	\$4.48	\$0.17	--	--	\$4.76
<b>Holdback Total</b>		<b>\$0.36</b>	<b>\$37.09</b>	<b>\$40.20</b>	<b>\$44.42</b>	<b>\$1.73</b>	<b>\$123.79</b>
Non-Holdback Program	Research and Innovation Fund	\$0.0	\$0.13	\$0.16	\$0.16	\$0.16	\$0.61
<b>Portfolio Total</b>		<b>\$0.36</b>	<b>\$37.22</b>	<b>\$40.36</b>	<b>\$44.58</b>	<b>\$1.89</b>	<b>\$124.40</b>

*Note: numbers may not add up due to rounding*

**Table 9: Estimated Holdback Program Budgets by Expenditure Category and Compliance Target (\$M)**

Category	2021	2022
Customer Incentives	\$0.00	\$31.33
Program Administration	\$0.32	\$3.32
Program ME&O	\$0.04	\$1.80
Program Evaluation	\$0.00	\$0.64
<b>Total Expenditure</b>	<b>\$0.36</b>	<b>\$37.09</b>
Total Equity Expenditure	\$0.12	\$19.34
CPUC Equity Expenditure Target (%)	35%	45%
PG&E Equity Expenditure to CPUC Target (%)	35%	52%
CARB Equity Proceeds Target (%)		30%
PG&E Equity Expenditure to CARB Target (%)		53%
CPUC Resiliency Expenditure Target (%)		<20%
PG&E Resiliency Expenditure to CPUC Target (%)		15%
CARB Equity Admin Expenditure Target <sup>18</sup>	≤10%	≤10%
PG&E Equity Admin Expenditure to Total Equity Expenditure	N/A <sup>19</sup>	10%

*Note: PG&E has designed the 2021 LCFS Portfolio to meet the 2022 targets and will propose additional programs to ensure compliance with targets of the future years.*

<sup>18</sup> 17 CCR § 95483 (c)(1)(A)(6)(c), pp 36, states “Administrative costs to support the development and implementation of holdback credit equity projects must not exceed 10 percent of total spending on holdback credit equity projects annually unless the EDU contracts with a community-based organization, and the exceedance is approved in advance by the Executive Officer”.

<sup>19</sup> PG&E is working with CARB to determine how to account for administrative costs in support of program set up and launch.

Table 10: Detailed 2021 LCFS Program Budgets (\$M)

Category	2021	2022	2023	2024	2025	Total
<b>Pre-Owned EV Rebate</b>						
Pre-Owned EV Rebate - Base	\$0.00	\$11.03	\$11.18	\$11.19	\$0.00	\$33.39
Pre-Owned EV Rebate - Equity	\$0.00	\$11.03	\$14.90	\$19.18	\$0.00	\$45.11
Implementer Program Admin						
PG&E Administration	\$0.11	\$0.27	\$0.28	\$0.28	\$0.11	\$1.06
General ME&O						
Equity ME&O						
Evaluation	\$0.00	\$0.43	\$0.44	\$0.45	\$0.46	\$1.79
<b>TOTAL</b>	<b>\$0.15</b>	<b>\$24.44</b>	<b>\$28.34</b>	<b>\$32.68</b>	<b>\$0.94</b>	<b>\$86.55</b>
<b>MUD/Small Business Direct Install</b>						
EVSE Installation - Non-equity						
EVSE Installation - Equity						
Implementer Program Admin						
PG&E Administration	\$0.05	\$0.27	\$0.27	\$0.28	\$0.11	\$0.98
General ME&O						
Equity ME&O						
Evaluation	\$0.00	\$0.13	\$0.13	\$0.13	\$0.13	\$0.52
<b>TOTAL</b>	<b>\$0.05</b>	<b>\$6.42</b>	<b>\$9.01</b>	<b>\$9.06</b>	<b>\$0.69</b>	<b>\$25.23</b>
<b>Residential Charging Solutions</b>						
Tech. Solutions Rebate - Non-equity						
Tech. Solutions Rebate - Equity						
PG&E Administration	\$0.05	\$0.15	\$0.15	\$0.15	\$0.06	\$0.56
General ME&O	\$0.00	\$0.27	\$0.02	\$0.02	\$0.00	\$0.30
Equity ME&O						
Evaluation	\$0.00	\$0.04	\$0.04	\$0.04	\$0.04	\$0.15
<b>TOTAL</b>	<b>\$0.05</b>	<b>\$1.75</b>	<b>\$2.68</b>	<b>\$2.68</b>	<b>\$0.09</b>	<b>\$7.26</b>
<b>Resilient Charging</b>						
Incentives + Tech. Testing: Non-equity						
Incentives + Tech. Testing: Equity						
Implementer Program Admin						
PG&E Administration	\$0.10	\$0.21	\$0.11			\$0.42
General ME&O						
Equity ME&O						
Evaluation	\$0.00	\$0.05	\$0.05			\$0.10
<b>TOTAL</b>	<b>\$0.10</b>	<b>\$4.48</b>	<b>\$0.17</b>			<b>\$4.76</b>
<b>Research and Innovation Fund</b>						
Project Funding	\$0.00	\$0.08	\$0.10	\$0.10	\$0.10	\$0.38
PG&E Admin	\$0.00	\$0.05	\$0.05	\$0.06	\$0.06	\$0.22
Evaluation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.01
<b>TOTAL</b>	<b>\$0.00</b>	<b>\$0.13</b>	<b>\$0.16</b>	<b>\$0.16</b>	<b>\$0.16</b>	<b>\$0.61</b>

All budgets, excluding direct customer incentives, include an escalation of approximately 2% over the years of program implementation.

### **3. Stakeholder Engagement**

Per requirement 4a in Section 3.11 of D.12-20-027 and as described in Section B.2 “Program Development” of this Implementation Plan, PG&E engaged a multitude of internal and external stakeholders in the development of the LCFS programs for the 2021 LCFS Portfolio. Stakeholder engagement is critical to the development of successful and effective programs, particularly for programs serving equity customers. Over the past year, the CET team engaged over thirty different stakeholders through individual and group meetings to identify specific gaps in PG&E’s support for customers, brainstorm potential program solution ideas, and then develop the ideas into the full-scale program proposals included in the Implementation Plan.

The internal PG&E stakeholders engaged include representatives from teams across the company, including Vehicle-Grid Integration (VGI), Demand Response, Low-Income and Disadvantaged Communities Programs, Tribal Communities, Small Business Engagement, Local Public Affairs, and Grid Planning. External stakeholders engaged include Greenlining, GRID Alternatives, Community Housing Development Corporation (CHDC), Valley Clean Air Now (Valley CAN), Self Help Enterprises, Electric Transportation Community, Beneficial State Foundation, Natural Resources Defense Council, Environmental Defense Fund, San Joaquin Valley Clean Energy Organization, Small Business Utility Advocates, Ecology Action, TURN, Cal Advocates, Community Choice Aggregators,<sup>20</sup> City of Berkeley, CARB, Energy Division, members of the Disadvantaged Communities Advisory Group, Bay Area Air Quality Management District (BAAQMD), San Joaquin Valley Air Pollution Control District, Energy Solutions, WeaveGrid, ev.energy, NeoCharge, Tesla, specific multi-unit dwelling property owners, and others. PG&E also met biweekly for the past five months with Southern California Edison and San Diego Gas & Electric to coordinate on general approach to the LCFS Implementation Plan and align on specific program design when possible.

Stakeholders provided invaluable feedback and recommendations for specific aspects of the programs and PG&E adjusted the design, scope, target customers, and ME&O approach, among other things, of the programs in response. Specific feedback from stakeholders on each program and how PG&E incorporated it into the program design is included in each program proposal.

### **4. Holdback Program Proposals**

There are four proposed Holdback Programs funded by PG&E’s holdback credit revenue: Pre-Owned EV Rebate, Multi-Unit Dwelling/Small Business Direct Install, Residential Charging Solutions, and Resilient Charging. Each of these are described in more detail in the subsequent sections.

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<sup>20</sup> PG&E met with representatives from Marin Clean Energy, Sonoma Clean Power, Pioneer Community Energy, East Bay Clean Energy, Redwood Energy, Silicon Valley Clean Energy, Peninsula Clean Energy, Central Coast Community Energy, and San Jose Clean Energy.

**Program #1: Pre-Owned EV Rebate Program**

The Pre-Owned EV Rebate Program is a post-purchase rebate for customers who purchase an eligible pre-owned passenger EV, with an additional rebate for income qualified customers. Pending CPUC approval of the program, PG&E plans to set up the program in Q4 2021 - Q1 2022 and launch the program in Q2 2022.

Pre-Owned EV Rebate Program	
Customer Segment	Residential customers
Program Design	Provide a post-purchase rebate for pre-owned EVs, with a \$1000 base rebate and additional \$3000 for income-qualified customers
Implementation Structure	Third-party implemented – implementer responsible for application processing and issuing rebates
Program Goals	<ul style="list-style-type: none"> <li>• Support near-term EV adoption and second life of EVs</li> <li>• Increase access to EVs for Low-and-Moderate Income (LMI) customers</li> <li>• Provide education and gain insight to factors that affect vehicle purchase</li> </ul>
Timeframe & Launch Date	Three years; Q2 2022 (anticipated)
Total budget	\$86.55 million
Funding source	Residential holdback revenue

**Policy and Market Support***Barriers Addressed*

The pre-owned EV rebate reduces the upfront cost of an EV, primarily addressing the customer barrier of total cost of EV ownership. The purchase price of an EV is still higher than comparable Internal Combustion Engine (ICE) vehicles, which makes them unaffordable to many customers.<sup>21</sup> This is also true for the pre-owned EV market, especially for newer models that have longer driving ranges. Based on a recent survey from Kelley Blue Book, the top five selling used EVs (model years 2017-2018) were an average of \$2,000 more expensive than their ICE counterparts.<sup>22</sup> A rebate can help customers who are “on the fence” decide to purchase an EV, as found in a recent PG&E series of in-depth interviews of customers about the EV journey.<sup>23</sup> Additionally, CBOs noted that LMI customers are more likely to purchase pre-owned vehicles over new vehicles, and a rebate can help lower the total purchasing price of an EV – thus increasing access to clean transportation for customers who have limited budgets.

The current pre-owned EV market is small when compared to the pre-owned ICE market, but continues to grow as more new EVs are manufactured and sold, come off their leases, or customers upgrade current

<sup>21</sup> In June 2019, the average cost of a new EV compared to a new ICE vehicle was \$19,000 more expensive. <https://www.caranddriver.com/research/a31544842/how-much-is-an-electric-car/> (accessed June 3, 2021)

<sup>22</sup> Based on market data from Kelley Blue Book Fair Market Price (buy from dealer, priced without added options), accessed March 2020

<sup>23</sup> PG&E conducted a series of in-depth interviews with 14 customers from March to April about the EV journey to gain insight into consumer consideration of EVs and the vehicle decision-making process, including research sources, incentives, and barriers

vehicles with newer models.<sup>24</sup> This turnover will help expand the available pre-owned options and support customers with a wide range of transportation and financial needs.

### *Program Alignment*

A pre-owned EV rebate fills in a gap in PG&E customer program offerings, furthers the impact of existing pre-owned EV rebate programs, and complements the pre-owned EV rebate programs offered by the other IOUs and the LCFS-funded CCFR that offers a rebate for the purchase of a new EV. Additionally, a pre-owned EV rebate is one of the approved equity programs listed in CARB's LCFS regulation.

PG&E does not currently offer any type of rebate for customers who purchase pre-owned passenger EVs. The Clean Fuel Rebate program, which sunset in December 2020, offered a rebate for the purchase of an EV but it was limited to one rebate per Vehicle Identification Number (VIN). Many customers who purchased a pre-owned EV were therefore ineligible to receive the Clean Fuel Rebate if the prior owner had claimed it. In a recent series of in-depth interviews, customers have expressed interest in a rebate program for pre-owned EVs as they are supporting the transition to clean transportation just as much as new EV buyers.

Offering a pre-owned EV rebate also complements PG&E's existing residential customer programs and education resources, such as Empower EV, EV rates, EVCN, and EV Fast Charge programs. Combined, these offerings can help customers through all steps in their electrification journey, including reducing the upfront vehicle purchase price, enabling home charging installation, and increasing the availability of public charging. The Pre-owned EV Rebate Program also complements the other LCFS program proposals that address additional barriers in the TE journey, including access to infrastructure at multi-unit dwellings, cost of charger installation, and range anxiety concerns during emergencies.

While there are several other local and statewide programs that offer rebates for pre-owned EVs,<sup>25</sup> many of them have vehicle replacement requirements and/or strict income limits. The intent of the simple Pre-owned EV Rebate Program design is to support customers who might not meet other program requirements while also enabling customers to easily stack the rebate with other available incentives, further lowering the cost of a pre-owned EV and increasing access to clean transportation. Eligible PG&E customers would be able to combine the PG&E rebate with other programs, which is particularly important for LMI customers who likely need to access up-front grants or vehicle financing as well as additional after-the-fact rebates to afford a vehicle. PG&E designed the program so that the rebate could be stacked based on feedback from key stakeholders who run equity-focused programs such as CHDC, Valley CAN, Beneficial State Foundation, and BAAQMD.

An LCFS-funded pre-owned EV rebate program is an important complement to the LCFS-funded CCFR incentive for the purchase of a new EV. PG&E customers who cannot afford or do not wish to purchase a new EV are not able to take advantage of the incentive offered in that program and do not have an

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<sup>24</sup> Almost 100 battery electric vehicles are set to debut by 2024 – <https://www.caranddriver.com/news/g29994375/future-electric-cars-trucks/>

<sup>25</sup> For example: Clean Vehicle Assistance Program, Clean Cars 4 All, Driving Clean Assistance Program, Peninsula Clean Energy DriveForward Electric.

alternative incentive program option from PG&E. Offering a pre-owned EV rebate expands the number of customers who are able to benefit from LCFS revenue and supports a more equitable distribution of the revenue. In addition, additional rebates or incentives to low-income individuals for purchasing or leasing new or previously owned EVs is one of eligible equity projects listed in CARB's LCFS regulation.<sup>26</sup>

PG&E's Pre-owned EV Rebate Program will also be complementary to the similar rebate programs proposed by the other IOUs. Pursuant Section 3.11 in D.20-12-027, PG&E has met with Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E) through biweekly meetings over the past four months to coordinate various aspects of the Pre-Owned EV Rebate Program in an effort to ensure a consistent customer experience across the different utility territories. The IOUs recognize the benefit of a standard rebate to encourage broad customer participation and for an additional incentive to target certain qualifying customers and have initially designed their programs to align in rebate amounts, eligibility, and general program design. The IOUs also acknowledge that each utility will have different specific customer needs based on their unique territories and different LCFS positions and strategies, and therefore some differences across the offerings as the programs are implemented are likely. The IOUs expect to continue these coordination meetings as each utility moves toward implementing its pre-owned EV rebate program so that details around vehicle and customer eligibility, as well as outreach efforts, may be aligned where practicable.

### *Stakeholder Feedback*

PG&E met with an extensive and diverse group of external stakeholders over the course of the development of the program. Those stakeholders include EJ advocates, environmental groups, program implementers, and government entities. These conversations were extremely productive and helpful in designing the pilot to be effective and equitable. Overall, stakeholders were supportive of the pilot design and intent and expressed the need for this kind of program to support customers. They also emphasized that the size of the total rebate for income qualified customers would be impactful. Specific examples of stakeholder feedback incorporated into the pilot design include:

- There is a negative connotation associated with the word "used," especially for lower-income customers, so PG&E changed the program name from "Used EV Rebate Pilot" to "Pre-Owned EV Rebate Pilot."
- Stacking this rebate with other incentives is critical to further increase access for LMI customers, so PG&E will keep the rebate eligibility criteria as simple as possible.
- PG&E will implement rigorous program controls to avoid fraudulent applications as seen in other pre-owned EV rebate programs.
- To support more customers and avoid introducing a different income standard for the program that could further complicate the process for LMI customers, PG&E will use Area Median Income (AMI) for the income qualification level for the additional rebate.
- PG&E will also use "categorical eligibility" (described more below) as a means to verify income qualified customers for the additional rebate to help simplify the application process for LMI customers.

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<sup>26</sup> 17 CCR § 95483 (c)(1)(A)(6)(a)(vi)

- PG&E will allow person-to-person sales to qualify for the rebate with proof of valid vehicle registration and documentation of title transfer in order to ensure access for LMI customers, many of whom do not purchase vehicles from dealerships.

### **Customer Eligibility**

PG&E residential electric customers who have purchased a qualifying pre-owned Battery Electric Vehicle (BEV) or Plug-in Hybrid Electric Vehicle (PHEV) within the rolling past six months of submitting the application are eligible for the rebate.<sup>27</sup> The vehicle must be a plug-in electric, highway-rated, personal passenger vehicle registered to a residential PG&E account. A qualified pre-owned EV must have either:

- 1) greater than 7,500 miles on the odometer at the time of purchase;<sup>28</sup> or
- 2) Title transfer or registration documents that indicate transfer of ownership.

If neither of those criteria are met, PG&E may consider providing a rebate, at its sole discretion, if the applicant can provide other evidence demonstrating that the vehicle has been previously owned. The vehicle must be registered at a current PG&E electric account address and the customer must submit a valid vehicle registration and title transfer or purchase agreement. There will be a limit of one rebate per VIN per 12 months with a limit of three rebates per VIN in the program.

In support of equity customers per D.20-12-027, customers below 80% of the AMI are eligible for the additional income-qualified rebate and will be required to provide proof of eligibility through income documentation or “categorical eligibility.” Proof of categorical eligibility means customers must show proof of current enrollment in a program that requires income verification and has equal or stricter income limits. PG&E will work with the program implementer to develop the list of programs that would qualify for categorical eligibility verification. PG&E will use 80% of AMI as the income qualification because it maintains consistency with other EV programs and is one of the eligible definitions of equity in D.20-12-027 and CARB’s LCFS regulations.

### **Distribution of Revenue**

PG&E plans to provide a uniform base rebate amount of \$1,000 to any eligible customer who purchases or leases a pre-owned EV. Income qualified customers will receive an additional \$3,000 rebate for a total of a \$4,000 rebate.

The rebate values were determined through analysis of pre-owned EV market data and the average price difference of a pre-owned EV compared to a comparable ICE vehicle, benchmarking with existing pre-owned EV rebate programs, and discussions with CBOs implementing programs to serve LMI customers. PG&E plans to revisit the rebate amount after six and 12 months into the program’s implementation, as well as every 12 months after until the end of the program. PG&E may adjust the rebate levels (e.g.

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<sup>27</sup> For example, if a customer submits a rebate application in December 31, 2022, they must have purchased their vehicle after May 31, 2022.

<sup>28</sup> This requirement was developed in discussion between the IOUs and is based off of the vehicle eligibility used in the Clean Vehicle Rebate Program that requires a new vehicle to have an odometer reading below 7,500 miles at the time of purchase or lease. <https://cleanvehiclerebate.org/eng/eligibility-guidelines>

increase the dollar amount for the equity rebate) or the number of rebates (e.g. limit the number of non-equity rebates issued) in response to customer participation, market factors, and revenue spend requirements. PG&E will work with the implementer to appropriately alert the customers to a change in rebate levels similar to the process used in PG&E's Clean Fuel Rebate program.<sup>29</sup> PG&E will include a summary of the rebate information each year in its Annual LCFS Forecast Advice Letter required by D.14-12-083.

Customers will apply for the rebate via an online or paper application and submit the necessary documentation. The program implementer will process the applications and issue the appropriate rebate value to the customer. PG&E will determine the rebate issuance method – direct deposit or check – after additional consideration of the costs and processes of the program implementer contracted for the program.

### **Program Administration**

PG&E will contract with a third-party to implement the Pre-Owned EV Rebate Pilot. Upon approval of the Implementation Plan by the CPUC, PG&E will develop a Scope of Work (SOW) for the program and issue a Request for Proposals (RFP) in order to find the most qualified and cost-competitive implementer.

Once a third-party implementer is contracted, they will be responsible for:

- **Pre-launch activities:** Developing a detailed program implementation plan (along with the PG&E team); building a program website, online application, and back-end system to manage program applications; and developing an Evaluation, Measurement, and Verification (EM&V) plan with the PG&E team.
- **Program implementation activities:**
  - **Application processing:** Screening applications for eligibility, delivering rebates to qualified applicants, providing customer support and troubleshooting. Details of website and application design, back-end processes and timeline for application processing, and rebate delivery method will be determined through the development of the SOW and with the selected third-party as appropriate.
  - **ME&O:** Supporting program marketing efforts as described below.
- **Program evaluation activities:** Tracking and reporting on key program metrics as listed in the program evaluation section below; administering a post-rebate survey to each customer with questions about the influence of the rebate on their purchasing decision and with educational information about EV rates and charging. The implementer will share the survey responses with PG&E to aid in program evaluation and generating key customer insights.

PG&E will also support program implementation and will be responsible for:

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<sup>29</sup> During the Clean Fuel Rebate program, any program changes were communicated via a pop-up notice or “splash page” on the application that required the customer to read and acknowledge the update before proceeding to the application. PG&E also updated its program website page and FAQ page with the new program information.

- **Pre-launch activities:** Running the RFP process, setting up the selected implementer, working with implementer to develop a detailed program implementation plan, supporting PG&E ME&O activities.
- **Program execution activities:** General implementer oversight, data review and reporting, ME&O coordination, program evaluation, and ad hoc requests.

## **ME&O**

As mentioned earlier in Section A.3, the ME&O plan for this program will include a general ME&O plan and an equity-focused ME&O plan to be implemented as part of the CBO partnership.

The intended general ME&O plan will include tactics to reach all eligible customers and is to be executed by PG&E and/or the Implementer. To be efficient and effective in targeting non-equity customers, the ME&O approach plans to use direct-to-customer, low-cost digital channels. Doing so enables stronger targeting capabilities and the ability to learn in-market what outreach is performing well with data and optimize as needed. Equity customers will also be reached by general ME&O but will not be the primary focus, as the equity-focused ME&O plan will fill that role. Because PG&E will be closely tracking and potentially increasing the ratio of income-qualified rebates to base rebates to ensure compliance with the equity targets, the general ME&O plan may be adjusted based on program participation needs. Any changes to the general ME&O budget will be included in the Annual LCFS Forecast AL.

The equity-focused ME&O plan will be executed by the contracted CBOs and primarily target low-income customers who meet the income qualifications for the additional rebate but will also include underserved and hard-to-reach equity customers such as those in Disadvantaged Communities (DACs) or tribal communities. The plan will likely include high-touch, one-to-one outreach to have deeper conversations and capitalize on existing customer relationships with CBOs. Additionally, it is anticipated that equity customers may have a longer journey to EV adoption requiring additional education and time. Equity outreach is expected to require more budget given the resource intensive nature of the audience and the importance of fairly compensating CBOs for their time and work. The specific approach and tactics to reach the intended equity customers for this program will be developed in partnership with the selected CBOs.

For both audience segments, ME&O would focus on opportunities to stack offers to help potential EV customers make their vehicle purchase more attainable. Some specific ME&O tactics and responsibilities for each entity include:

- **PG&E activities:** Implementing message integration into residential newsletters, email campaigns to existing customer segments (including equity customers), social media targeting specified geographic regions, co-marketing with existing PG&E EV and energy programs, updates to PG&E's EV Home Page and the EV Savings Calculator, and development of marketing collateral
- **Implementer activities:** Implementing email campaigns to existing customer segments and social media campaigns
- **CBO activities:** Conducting targeted outreach to equity customers which may include hosting webinars to communicate program eligibility and application directions, and co-development of

marketing collateral with PG&E for CBO call-centers and in-person events (including multi-lingual options)

This is not an exhaustive list of ME&O activities and specific strategies may be adjusted based on the implementer selected, the specific CBO partners, and customer participation. These ME&O efforts will be critical to raising awareness about the program and encouraging participation, and their effectiveness will be measured by number of customers reached and number of rebate applicants.

The ME&O activities for the program are specific to raising awareness and supporting participation in the Pre-Owned EV Rebate Program and are therefore not duplicative of any existing ratepayer funded ME&O. The activities will leverage existing marketing channels and program outreach to include information about the rebate.

### **Program Evaluation**

As described in the Portfolio Structure section (B.3), evaluation includes both regular assessment of program performance and customer satisfaction, as well as more formal reports and research studies determined by the specific needs of the program. The program's evaluation activities will include:

- **Key metrics:** PG&E will collect and analyze program data on a regular cadence to assess the effectiveness of the program. Key data points include:
  - Number of base rebates issued
  - Number of additional income-qualified rebates issued
  - Evidence of the rebate's influence on the customer's vehicle purchase (via attribution questions on the post-rebate survey).
  - Location of participants throughout the service territory
  - Application turnaround time
  - Application rejection rate

PG&E will include additional data collection metrics for the pilot once the implementer is contracted and the pilot implementation plan is finalized.

- **ME&O effectiveness:** PG&E will set up a regular cadence of program status reporting with the implementer (e.g. weekly/monthly) and CBOs to evaluate progress of ME&O efforts and identify opportunities for process improvements. PG&E will also regularly evaluate internal ME&O efforts to identify any need for change.
- **Customer experience:** PG&E will review customer survey responses and document key customer insights about the EV purchasing journey to inform program improvements and customer outreach.
- **Additional studies:** PG&E will assess the specific needs, challenges, and opportunities of the program as it is implemented and will suggest additional traditional evaluations or specific research studies as appropriate.

### **Estimated Budget and Implementation Schedule**

PG&E targets administering up to 45,000 rebates in the three-year program for an estimated total program budget of \$87 million. PG&E developed the target number of rebates by applying historical participation levels from the Clean Fuel Rebate to a forecast of the pre-owned EV market. With targeted ME&O, PG&E aims increase the rate of participation of income-qualified customers each year in the program. PG&E assumed a steady program participation rate of 63% of the eligible pre-owned EV market for a total of ~44,600 total rebates issued. Of the ~44,600 total rebates issued, PG&E assumed an increasing percentage would be for income-qualified customers for a total of ~11,300 rebates. Estimated annual spend for the program is detailed in the table below.

**Table 11: Estimated Budget for Pre-Owned EV Rebate Program**

Budget in Millions	2021	2022	2023	2024	2025	Total
Pre-Owned EV Rebate - Base	\$0.00	\$11.03	\$11.18	\$11.19	\$0.00	\$33.39
Pre-Owned EV Rebate - Equity	\$0.00	\$11.03	\$14.90	\$19.18	\$0.00	\$45.11
Implementer Program Admin						
PG&E Administration	\$0.11	\$0.27	\$0.28	\$0.28	\$0.11	\$1.06
General ME&O						
Equity ME&O						
Evaluation	\$0.00	\$0.43	\$0.44	\$0.45	\$0.46	\$1.79
<b>TOTAL</b>	<b>\$0.15</b>	<b>\$24.44</b>	<b>\$28.34</b>	<b>\$32.68</b>	<b>\$0.94</b>	<b>\$86.55</b>

*Note: Numbers may not add up due to rounding*

The budget estimates may change based on adjustments to the rebate levels, number of rebates issued, ME&O strategies, customer participation, and market factors. PG&E may also extend the length of the program based on customer interest and portfolio needs and will work closely with Energy Division Staff on any adjustments to the program. PG&E will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report.

Assuming PG&E receives approval for this advice letter by Q3 2021, PG&E anticipates to begin distributing rebates in Q2 2022 as shown in the schedule below.

**Table 12: PG&E’s Preliminary Schedule for Pre-Owned EV Rebate Program Launch**

June 2021	PG&E files Tier 2 AL
Q3 2021	Estimated timing of possible Commission approval of Tier 2 AL <sup>30</sup>
Q4 2021	PG&E issues RFP
Q1 2022	PG&E contracts with third-party Implementer and begins program set up
Q2 2022	PG&E/Implementer launch ME&O campaign and Implementer begins receiving rebate applications
Q2 2022	Implementer begins distribution of rebates

<sup>30</sup> CPUC Zero-Emission Vehicle Action Plan - [https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC\\_ZEV-Action-Plan-te-mtx-2.5.pdf](https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC_ZEV-Action-Plan-te-mtx-2.5.pdf)

**Program #2: Multi-Unit Dwelling and Small Business Direct Install Pilot**

In the Multi-Unit Dwelling (MUD) and Small Business Direct Install Pilot, PG&E will work with a third-party implementer to install low-power chargers (Level 1 or Level 2) at MUD and small business sites that have excess capacity on their electric panel, at no cost to the site host. The majority of sites in this turnkey pilot will be located in equity communities, serving equity customers. PG&E will complement the infrastructure investment with an education campaign for the residents/tenants of each site to increase awareness about the charger installation and other EV benefits and incentives. Pending CPUC approval of the pilot, PG&E plans to set up the pilot in Q4 2021 – Q2 2022 and launch the program in Q3 2022.

Multi-Unit Dwelling and Small Business Direct Install Pilot	
Customer Segment	Multi-unit dwellings and small businesses
Pilot Design	Install low-power chargers (Level 1 and Level 2) at small MUDs and small businesses that have excess capacity on panel
Implementation Structure	Third-party implemented – implementer responsible for customer acquisition and infrastructure installation
Pilot Goals	<ul style="list-style-type: none"> <li>• Increase access to charging for underserved customers</li> <li>• Test ability to defer panel and/or grid upgrades while still meeting customer charging needs with low-power charging</li> <li>• Understand charging needs and behaviors of small business customers</li> </ul>
Timeframe & Launch Date	Three years; Q3 2022 (anticipated)
Total budget	\$25.23 million
Funding source	Residential holdback revenue

**Policy and Market Support**

*Barriers Addressed*

The two primary customer barriers addressed through this pilot are access to charging infrastructure and education and awareness about EVs. The lack of access to home charging options for customers who live in MUDs is a significant barrier to widespread TE. Homeowners in California are more than three times as likely to own an EV compared with those who do not own a home,<sup>31</sup> leaving MUD residents with fewer, and very likely more expensive, charging options. The latest Executive Order N-79-20 has set an ambitious target of 100% zero-emission new passenger car sales by 2035<sup>32</sup> and increasing access to charging for MUD residents will be critical to successfully achieving that goal. The California Energy Commission’s Staff Report on AB 2127 EV Charging Infrastructure Assessment estimates that supporting MUDs in this transition may require between 258,000 and 316,000 Level 1 and Level 2 charging ports.<sup>33</sup>

<sup>31</sup> S. Hardman et al., 2018. “A Review of Consumer Preferences of and Interactions with Electric Vehicle Charging Infrastructure.” Transportation Research Part D: Transport and Environment 62: 508–23, p. 518

<sup>32</sup> Governor Newsom’s Executive Order N-79-20 – <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>

<sup>33</sup> California Energy Commission’s Staff Report on AB 2127 EV Charging Infrastructure Assessment, pp. 30

There are over 1 million units at multi-family properties in counties across PG&E's service territory,<sup>34</sup> indicating that a significant number of customers in PG&E's Service Territory that may not have access to affordable charging if they are EV drivers or are thinking about purchasing an EV. For MUD property owners, cost – both upfront and over time – is the primary barrier to Electric Vehicle Supply Equipment (EVSE) installation at a site. These challenges are well documented in Ecology Action's Innovation in EV Charging for MUDs Report<sup>35</sup> and Energy Solutions' Low-Power EV Charging Pilot with Peninsula Clean Energy (PCE).<sup>36</sup> Many MUD property owners do not have budget available for EVSE installation and/or are concerned about a negative impact on net operating revenue for the installation and the operation and maintenance of the charging stations. However, in a survey conducted by Ecology Action for their report, 72% of survey respondents said they would be willing to install EV charging stations if a direct installation program were offered at no-cost.<sup>37</sup>

While MUD property owners may understand that installing EVSEs provides benefits – including increasing the value of the rental property – there has historically been low EV adoption among renters, especially low-income MUD residents. This is likely due to the ineffectiveness of traditional marketing and outreach channels in increasing awareness about the benefits of EVs and the incentives available to those customers. A targeted education campaign for the residents of each MUD site receiving an EVSE installation would increase awareness and education about the chargers installed at their residence and would be an opportunity to inform customers about other available EV incentives, including a potential Pre-Owned EV Rebate program, and resources to support them in their electrification journey.

The specific needs and barriers to charging for small businesses are less known. However, as the Small Business Utility Advocates point out in their comments on the TEF, “it is vitally important to address barriers that exist for light duty vehicle drivers. Light duty vehicles are commonly used in many types of small businesses including small businesses that manage commercial fleets.”<sup>38</sup> PG&E is also working on a research study to understand how to better support small businesses interested in installing EV chargers. The study will deliver findings in an action-oriented playbook for PG&E and is expected to be completed in June 2021. The recommendations in the playbook will be used to design the specific implementation details of the pilot to support the small business site hosts and generate lessons learned about the effectiveness of the recommended strategies. This pilot will provide much needed data on the barriers small businesses face in installing EV charging infrastructure that can inform future programs.

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<sup>34</sup> PG&E conducted a Multi-family characterization project in January 2020

<sup>35</sup> Ecology Action on behalf of East Bay Clean Energy (2020) “Innovation in Electric Vehicle Charging for Multi-Unit Dwellings,” accessed at:

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=235942&DocumentContentId=68936>

<sup>36</sup> Peninsula Clean Energy Case Study (2021) “Low-Power EV Charging,” accessed at:

<https://www.peninsulacleanenergy.com/wp-content/uploads/2021/05/Low-Power-Case-Study-1.pdf>

<sup>37</sup> Ecology Action on behalf of East Bay Clean Energy (2020) “Innovation in Electric Vehicle Charging for Multi-Unit Dwellings” pp. 8, accessed at:

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=235942&DocumentContentId=68936>

<sup>38</sup> Small Business Utility Advocates reply comments on the Proposed Decision concerning LCFS Revenue Utilization pp. 1-2

*Program Alignment*

PG&E has been working to address the barrier of access to infrastructure for customers who may not have charging at home through the EVCN Program. EVCN targets to install approximately 4,800 ports at MUDs and workplaces before the program ends in 2021 and there are a significant number of customers who indicated interest in the program but were unable to participate given the regulatory cost cap. Furthermore, since closing its waitlist in Q2 2019, PG&E has allowed customers to complete an online interest form, which has been submitted by nearly 700 customers to date. PG&E plans to propose a Phase II of the EVCN program to address customer demand and support the state in meeting infrastructure targets laid out in AB 2127. While the details of PG&E’s EVCN II proposal are not final subject to change, as informed by the *Proposed Decision Setting Near-Term Priorities for Transportation Electrification Investments by the Electrical Corporations* in R.18-12-006, the EVCN program participation may be infeasible for many smaller MUDs or workplaces who can only install a small number of ports for a few reasons. First, the projects may not pass PG&E’s cost thresholds because they do not achieve economies of scale associated with larger sites. Second, customers may not be able or willing to meet the cost share that will likely be proposed. By limiting Direct Install projects to those that do not require any To-The-Meter (TTM) upgrades, this Direct Install pilot would provide cost-efficient support for those customers for whom EVCN Phase II is not a good match.

The MUD/Small Business Direct Install Pilot builds off of the lessons learned and interested customers from EVCN and is specifically designed to be complementary to the proposed Phase II as currently drafted,<sup>39</sup> in order to support customers who have not been and/or may not be served by the Utility’s larger infrastructure programs.

	<b>Charger Power Level</b>	<b>Utility Infrastructure Investment</b>	<b>Target # of ports per site</b>
<b>EVCN</b>	Level 2	TTM and Behind-the Meter (BTM)	>10 ports
<b>EVCN Phase II (as drafted)</b>	Level 2 and DC Fast Charge	TTM and BTM	PG&E anticipates EVCN Phase II will target higher port count sites (>10) to reduce cost per port in line with recent CPUC guidance <sup>40</sup>
<b>MUD/Small Business Direct Install</b>	Level 1 and Level 2	Limited BTM, leverage existing panel capacity	Support customers ineligible for EVCN and those unable to meet required cost share in a Phase II

Additionally, there are some site hosts, most likely in equity communities and serving low-income customers, who are unlikely to install infrastructure on their own given the high upfront costs. While there are a few State and Air District programs that offer rebates or other forms of financial support for EVSE installation, many of the programs have some cost-sharing or data collection requirements that discourage property owners from participating. For example, the BAAQMD Charge! Program requires a 10% cost

<sup>39</sup> PG&E is still finalizing the Phase II proposal and details may change.

<sup>40</sup> CPUC [Proposed Decision Setting Near-Term Priorities for Transportation Electrification Investments by the Electrical Corporations](#) (R.18-12-006)

share and strict usage requirements that has made participation by equity communities, such as AB 617 communities, challenging.<sup>41</sup> Therefore, the Direct Install pilot will be especially important for customers such as affordable housing complexes, small MUDs with only a few units, and small businesses in equity communities.

PCE has conducted a small pilot to install nine Level 1 low-power charging ports at two sites,<sup>42</sup> and Ecology Action, in partnership with and East Bay Community Energy (EBCE), conducted a study to better understand whether and how low-cost direct installation EV charging could support MUDs.<sup>43</sup> Both those efforts provide important lessons learned for this pilot; however, this pilot would be larger, aiming to install ~2,000 ports, and will be the first to install low-power charging at small businesses and assess its value to that customer segment. It would help fill in a gap in support for small businesses and generate valuable data that can inform future program design.

Lastly, this pilot would be aligned with CARB's direction regarding Holdback Equity Projects. The LCFS regulation lists investment in public EV charging infrastructure and EV charging infrastructure in multi-family residences serving equity communities as one of the eligible equity projects.<sup>44</sup> PG&E has not yet determined whether to include private charging for small businesses as part of the pilot and will work with the implementer to determine the final design. If private charging at small businesses is included to meet small business needs, PG&E will submit an application to CARB's Executive Officer for approval of that element of the pilot as promoting TE in equity communities and therefore an eligible equity holdback program.<sup>45</sup>

#### *Stakeholder Feedback*

PG&E met with many stakeholders in the process of developing this pilot including CBOs, EJ advocates, government agencies, small business advocates, program implementers, and MUD property managers. Some stakeholders had implemented similar programs, some worked with the same customers targeted in the pilot, and some were customers who could be served by the pilot. Stakeholders found this pilot of particular interest as it addressed a well-known barrier for an underserved segment and thought that the direct install model at no-cost to the property owner is needed to effectively serve equity communities. Specific examples of stakeholder feedback incorporated into the pilot design include:

- Both for-profit and not-for-profit small businesses and organizations (such as churches) will be eligible for the pilot to support for community organizations that are pillars in equity communities.
- The implementer will first target affordable housing complexes during customer acquisition, then sites in DACs and low-income census tracts to ensure the pilot is serving low-income customers first.

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<sup>41</sup> Per a conversation with BAAQMD staff

<sup>42</sup> Peninsula Clean Energy Case Study (2021) "Low-Power EV Charging," accessed at:  
<https://www.peninsulacleanenergy.com/wp-content/uploads/2021/05/Low-Power-Case-Study-1.pdf>

<sup>43</sup> Ecology Action on behalf of East Bay Clean Energy (2020) "Innovation in Electric Vehicle Charging for Multi-Unit Dwellings," accessed at:  
<https://efiling.energy.ca.gov/GetDocument.aspx?tn=235942&DocumentContentId=68936>

<sup>44</sup> 17 CCR § 95483 (c)(1)(A)(6)(a)(iii)

<sup>45</sup> 17 CCR § 95483 (c)(1)(A)(6)(a)(vii)

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- The pilot will provide upfront cost coverage for the networking and software fees for the EVSEs for two years after installation to further lower the total cost of installing chargers for site hosts.
- Each project site will have flexibility in the design for chargers – level 1 vs. level 2 chargers and public vs. private charging – so that the solution is matched to the specific needs of the site.

### **Customer Eligibility**

A MUD property or small business site is eligible for the MUD and Small Business Direct Install Pilot if they meet the following criteria:

- Receives electric service from PG&E
- The property site configuration meets the cost-effective, low-power charging requirements as determined in the Implementer RFP and assessed by the third-party implementer in pilot implementation.
- EVSE installation does not trigger upstream grid updates
- While any site meeting the configuration requirements would be eligible, the implementer will have specific customer acquisition goals in order to first serve the target customers for the pilot: affordable housing complexes, small MUDs with fewer units (likely 5-10 units), and small businesses in DACs and low-income census tracts. The implementer will have a goal that the majority of sites are serving equity customers and communities, and any eligible non-equity site will likely have some form of cost share.

In support of equity per D.20-12-027, PG&E aims to have all sites participating in the pilot be in equity communities or specifically serving equity customers (e.g. affordable housing units). However, because of the many factors that may contribute to ineligibility – lack of panel capacity, challenges with tenant parking, increased costs for ADA requirements, competing priorities for the property or business owner (e.g. other maintenance issues) – PG&E may allow some non-equity sites in the pilot with some form of cost sharing. PG&E has not yet determined the specific customer acquisition goals for the pilot and will develop those with continued input from stakeholders for the Implementer RFP process. Determining customer eligibility will be a very high-touch and labor-intensive process for the implementer, therefore PG&E believes it is important to set goals for the pilot but allow for adjustments based on the market.

PG&E has also not determined the specific definition of small business for this pilot and plans to work with SBUA and other stakeholders to develop a definition that includes the various types of small businesses facing barriers to TE. PG&E will work closely with Energy Division staff to provide updates about the customer eligibility details for the pilot.

### **Distribution of Revenue**

The pilot will cover all EVSE installation costs and two years of networking and software fees for the site host. The costs of each project will be site-specific, dependent on the charging needs and site configuration. The implementer will be responsible for procuring the EVSE and coordinating the installation at the site so that the site host has no upfront costs. The Implementer will also be required to meet an average cost per port across all of the sites in the pilot. In order to prioritize sites in equity

communities, serving equity customers while also supporting cost-effectiveness in the pilot, PG&E will work with the implementer to potentially impose a minor cost share requirement for project sites in non-equity communities. PG&E will determine the final targets for the implementer (number of charging ports, number of sites, average cost per port) with input from internal and external stakeholders including EJ advocates, CBOs, property managers, and program implementers, and continued market research, and include them in the SOW for the implementer RFP.

### **Program Administration**

PG&E will hire a third-party to implement this pilot. Upon approval of the Implementation Plan by CPUC, PG&E will develop a SOW for the pilot and issue an RFP in order to find the most qualified and cost-competitive implementer. Once a third-party implementer is contracted, they will be responsible for the following activities for the pilot:

- **Pilot set-up activities:** The implementer will coordinate ME&O materials and strategy with PG&E and any CBO partners, work with PG&E to determine list of eligible contractors and qualified EVSE(s) that can be used in the pilot, develop resources to aid customer site hosts after installation (including an operation and maintenance guide, FAQs, troubleshooting, and “how to charge” guides), and develop an EM&V plan with the PG&E team.
- **Pilot implementation activities:**
  - **Customer acquisition:** The implementer will target priority pilot participants first and then broaden outreach. Once a customer is engaged and agrees to a site walk, the implementer will perform a site assessment of the panel capacity, parking configuration, and potential location of chargers. The implementer will also work with the property manager to survey residents or employees to understand EV penetration/interest. Next, the implementer will work with site host to develop a project design for the site and then perform a technical assessment to ensure the project can be constructed within the target cost. Finally, the implementer will work with the property owner’s decisionmaker(s) to sign the project contract.
  - **EVSE Installation:** The implementer will coordinate with various entities before construction, including EVSPs, city or county permitting offices, electricians, building inspector, and site hosts to coordinate necessary materials and processes. The implementer and/or their contractor will install the EVSE onsite and perform any necessary post-construction inspections. PG&E has not yet determined the charger ownership model for the pilot and will work with the implementer to determine the best solution for each site host. If PG&E chooses to own the chargers on behalf of the site host, PG&E may use LCFS revenue generated to cover any cost of ownership, such as operation and maintenance (O&M).
  - **Post-construction:** The implementer will work with the property manager to create a site-specific O&M plan, provide additional resources for EVSE operation described above (i.e. FAQs, how-to guides), and support the CBOs as necessary to execute the education campaign at MUDs post-installation.
- **Pilot evaluation activities:** The implementer will be responsible for collecting and reporting key metrics for the pilot as described in more detail in the program evaluation section below. PG&E

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is still determining the responsibilities of the implementer post-EVSE construction. Such responsibilities could include providing support for O&M and conducting resident and employee surveys to evaluate impact of EVSE installation on awareness and interest in EVs and other PG&E EV programs.

PG&E will also support pilot implementation and will be responsible for:

- **Pre-launch activities:** Running the RFP process, setting up the selected implementer, working with implementer to develop detailed pilot implementation plan, supporting PG&E ME&O activities.
- **Pilot execution activities:** General implementer management, implementer payments, data review and reporting, ME&O coordination and pilot evaluation.

Neither of the lists of activities for the third-party implementer nor for PG&E are intended to be exhaustive. PG&E will further develop the implementation details of the pilot for the SOW and RFP process and then will work closely with the implementer to finalize the pilot implementation plan.

## ME&O

As mentioned earlier in Section B.3, the ME&O plan for this pilot will include a general ME&O plan and an equity-focused ME&O plan to be implemented as part of the CBO partnership.

The intended general ME&O plan will be executed primarily by the Implementer as there are unique eligibility requirements for this pilot that require a high-touch customer outreach and acquisition approach. Based on the final number and types of sites to be targeted in the pilot, the Implementer will utilize a phased outreach approach for participation. Phase 1 will consist of outreach to affordable housing complexes, Phase 2 will consist of outreach to small businesses and MUDs with small unit numbers in DACs, low-income census tracts, and rural and tribal communities, and Phase 3 will consist of general outreach to all potentially eligible sites. This phased approach will ensure that pilot participation is open first to equity sites that meet the pilot requirements (e.g. additional capacity on the panel) while also working to serve as many eligible sites as possible within the pilot budget. PG&E will support the general ME&O to make potentially eligible customers aware of the pilot through existing channels and programs.

The equity-focused ME&O plan will be executed by the contracted CBOs and will include referrals of eligible site hosts to the implementer but will primarily be focused on execution of a specific education campaign focused on increasing awareness and education about EVs and EV charging for equity MUD residents in order to further the impact of the EVSE installation at the MUD sites in the pilot. Many residents may be unaware of the benefits of EVs and the incentives available to help lower the upfront purchase cost. The education campaign will include information about the specific EVSE installation at the property as well as information about rates and vehicle incentives, including the Pre-owned EV Rebate Program. The Utility and the CBO partners will develop the campaign collateral together to ensure consistent and effective messaging, including translation to other languages. Details of the campaign will

need to be determined once the CBO partners are selected but will likely include a digital toolkit, printed resources, and signage.

Some specific ME&O tactics and responsibilities for each entity may include:

- **PG&E activities:** Supporting general ME&O through email campaigns to existing customer segments, including equity customers (e.g. properties that have received energy efficiency rebates, EVCN waitlist), and co-marketing with existing PG&E EV and energy programs; co-creating a digital toolkit of pre-approved outreach messages by channel, which could include email, newsletters, social media, that an MUD site host can easily use for education outreach to tenants; creating signage for MUD site hosts to educate tenants on the benefits of an EV ownership and the charging infrastructure available on site.
- **Implementer activities:** Implementing targeted customer outreach via email campaigns to existing channels, canvassing and individual property outreach (e.g. affordable housing complexes, MUDs in DAC, small businesses in DACs (e.g. those certified by California's Small Business and Disabled Veteran Business Enterprise Certification Program), supporting coordination of MUD tenant education campaign
- **CBO activities:** Referring eligible site hosts to implementer for customer acquisition, co-creating education campaign material (including multi-lingual options) with PG&E, executing education campaigns at MUDs for residents including canvassing residents, working with property manager to contact residents, coordination with Access Clean California program

This is not an exhaustive list of ME&O activities and specific strategies may be adjusted based on the implementer selected, the specific CBO partners, and customer participation as the pilot is implemented. These ME&O efforts will be critical to educating site hosts, both MUD property owners and small business owners, about the value of EV charging at their site to encourage participation in the pilot and to increase usage of the chargers by raising awareness about the benefits of EVs and available incentives for the residents. ME&O efforts will be regularly evaluated and adjusted throughout the pilot as discussed further in the pilot evaluation section.

The ME&O activities for the program are not duplicative of any existing ratepayer funded ME&O and will leverage existing marketing channels and program outreach to include information about the pilot.

## **Program Evaluation**

As described in the Portfolio Structure section, evaluation includes both regular assessment of pilot performance and customer satisfaction, as well as more formal reports and research studies determined by the specific needs of the pilot. The pilot's evaluation activities will include:

- **Key metrics:** PG&E will collect and analyze pilot data on a regular cadence to assess the effectiveness of the pilot. Key data points include:
  - Average cost per port, average cost per site
  - Average number of chargers per panel, average number of chargers per site, average number of chargers per unit
  - Number of Level 1 chargers installed, per site and in aggregate
  - Number and power level of Level 2 chargers installed, per site and in aggregate

- Type and cost savings of power sharing or Automated Load Management (ALM) being utilized at the site
- Number of customers who completed each step of the customer acquisition journey (site survey, panel assessment, site concept design, contracting)
- Proximity to charging prior to participating in the pilot
- Number of EVs at each site pre-EVSE installation, at the end of the pilot, and two years after participating, and number of these EVs that took advantage of PG&E’s Pre-Owned EV Rebate
- Charger utilization data, if available
- Demographic information of the census tract (or the MUD community or small business if available)

PG&E will include additional data collection metrics for the pilot once the implementer is contracted and the pilot implementation plan is finalized. PG&E plans to share key lessons learned from the pilot, particularly about small businesses, publicly as appropriate.

- **ME&O effectiveness:** PG&E will set up a regular cadence of status reporting with the implementer (e.g. weekly/monthly) and CBOs to evaluate progress of ME&O efforts and identify opportunities for process improvements. PG&E will also regularly evaluate internal ME&O efforts to identify any need for change.
- **Customer experience:** PG&E will review customer survey responses and document key customer insights to inform pilot improvements and customer outreach.
- **Additional studies:** PG&E will assess the specific needs, challenges, and opportunities of the pilot as it is implemented and will suggest additional traditional evaluations or specific research studies as appropriate.

**Estimated Budget and Implementation Schedule**

PG&E is targeting to serve an estimated total of 450 sites over the three-year pilot with an estimated total of approximately 2,000 ports. Based on market research and discussions with implementers, PG&E has assumed an average number of five ports per MUD site and an average of three ports per small business site and an [REDACTED] for the pilot budget estimates. This includes costs for customer acquisition, program management, materials, construction, and ME&O. The estimated total pilot budget is \$25 million. Estimated annual spend for the pilot is detailed in the table below.

**Table 13: Estimated Budget for MUD-Small Business Direct Install Pilot**

Budget in Millions	2021	2022	2023	2024	2025	Total
EVSE Installation - Non-equity	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
EVSE Installation - Equity	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Implementer Program Admin	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
PG&E Administration	\$0.05	\$0.27	\$0.27	\$0.28	\$0.11	\$0.98
General ME&O	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Equity ME&O	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Evaluation	\$0.00	\$0.13	\$0.13	\$0.13	\$0.13	\$0.52
<b>TOTAL</b>	<b>\$0.05</b>	<b>\$6.42</b>	<b>\$9.01</b>	<b>\$9.06</b>	<b>\$0.69</b>	<b>\$25.23</b>

*Note: numbers may not add up due to rounding*

Budget estimates may change based on adjustments to customer acquisition targets, ME&O strategies, customer participation, and market factors. PG&E may also extend or reduce the length of the pilot based on customer interest and portfolio needs and will work closely with Energy Division Staff on any adjustments to the pilot. PG&E will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report.

Assuming PG&E receives approval for this advice letter by Q3 2021, PG&E currently anticipates beginning customer acquisition for the pilot in Q3 2022 as shown in the schedule below.

**Table 14: Preliminary Schedule for MUD/Small Business Direct Install Pilot Launch**

June 2021	PG&E files Tier 2 AL
Q3 2021	Estimated timing of possible Commission approval of Tier 2 AL <sup>46</sup>
Q1 2022	PG&E issues RFP
Q2 2022	PG&E contracts with third-party Implementer and begins pilot set up
Q3 2022	PG&E/Implementer launch ME&O campaign and Implementer begins customer acquisition

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<sup>46</sup> CPUC Zero-Emission Vehicle Action Plan - [https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC\\_ZEV-Action-Plan-te-mtx-2.5.pdf](https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC_ZEV-Action-Plan-te-mtx-2.5.pdf)

**Program #3: Residential Charging Solutions Pilot**

The Residential Charging Solutions Pilot is designed to provide educational resources and financial support to help customers install EV chargers at their home, either single family homes or MUDs, while avoiding or lowering the cost of electric panel upgrades and/or electric distribution grid upgrades. It will be implemented in phases, providing a customer assessment tool in Phase 1, a technology solution rebate in Phase 2, and additional financial support solutions in Phase 3. Pending CPUC approval of the pilot, PG&E plans to set up the pilot in Q1-Q2 2022 and launch Phases 1 and 2 in Q3 2022. The potential Phase 3 would be proposed in a future update to the Implementation Plan.

Residential Charging Solutions Pilot (Phase 1 and 2)	
Customer Segment	Residential customers (both single-family and MUD)
Program Design	Educational resources and financial support to install residential EV charging
Implementation Structure	PG&E implemented, with an RFQ to solicit the market for technology solutions
Program Goals	<ul style="list-style-type: none"> <li>• Increase access to home charging and reduce TCO by avoiding expensive upgrades</li> <li>• Lower TCO and increase access for equity customers</li> </ul>
Timeframe & Launch Date	Three years; Q3 2022 (anticipated)
Total budget	\$7.26 million
Funding source	Residential holdback revenue

**Policy and Market Support**

*Barriers Addressed*

The primary barriers addressed in this pilot are total cost of ownership (TCO) focused on charger installation cost, and education and awareness about EV charging. There are many components to a customer’s journey to electrify their vehicle, but questions about how to appropriately upgrade home charging capability appear to generate the most concerns among current EV owners and potential EV owners in a recent PG&E study, even trumping questions about the purchase cost of an electric vehicle.<sup>47</sup> While there are educational resources available regarding charging EVs at home, including PG&E’s EV Charging webpage,<sup>48</sup> not all customers are easily served by the traditional home charging setups described. For example, renters of single-family homes may desire a Level 2 charger to meet their daily driving requirements, but cannot install the charger because they do not own the home. Additionally, customers living in older homes with older electric panels may have less capacity available; installing a Level 2 charger could trigger an expensive panel upgrade or potentially a distribution grid upgrade making it a more costly and time-intensive process due to the additional work involved. Installing a Level

<sup>47</sup> PG&E conducted a series of in-depth interviews with 14 customers from March to April about the EV journey to gain insight into consumer consideration of EVs and the vehicle decision-making process, including research sources, incentives, and barriers

<sup>48</sup> PG&E’s “Charging your electric vehicle” page and “Finding the right EV charging station for you” video can be accessed at: [https://www.pge.com/en\\_US/residential/solar-and-vehicles/options/clean-vehicles/electric/charger-options/electric-vehicles-charging-pge.page](https://www.pge.com/en_US/residential/solar-and-vehicles/options/clean-vehicles/electric/charger-options/electric-vehicles-charging-pge.page).

2 charger at home can cost between \$400 to \$1,500 depending on the type of charger and installation labor required. However, if a panel upgrade is necessary for installing the Level 2 charger, the cost range can increase to ~\$4,500 or even higher.<sup>49</sup> Stakeholders indicated that many LMI customers are renters and/or live in older homes, making this yet another barrier the LMI community faces to electrification.

The EV market continues to change and produce solutions matched to customers' needs; however, many customers are unaware of those solutions or may not be able to afford them. An example of a readily available technology solution that could potentially be provided by the Residential Charging Solutions pilot is an outlet splitter which would enable a customer with an electric dryer in their garage to utilize the existing 240 volt infrastructure and split the outlet between the dryer and a Level 2 EV charger without needing to upgrade their panel.<sup>50</sup> Providing information and financial support for solutions that enable streamlined and low-cost installation of Level 2 chargers can help address barriers for customers with solutions that are readily available.

### *Program Alignment*

Access to home charging goes a long way to help customers make the switch to electric, and PG&E is trying to make that experience better from start to finish. There are three levels to this: first, providing education and outreach to help customers navigate existing processes; second, tailoring the process to help customers find solutions that fit their specific situations; and third, supporting customers by reducing the cost through incentives or financing.

PG&E is currently focused on education about EV charging at home and provides several resources, including the EV Savings Calculator, PG&E's EV Charging webpage, and the PG&E Marketplace. These resources provide an overview of the types of home charging, an explanation of the process to install charging, a checklist for working with an electrician, and a non-curated list of available Level 2 EV chargers. The EV Savings Calculator does have some options to customize recommendations, but the current resources do not delve into "edge case" situations where a customer may be faced with additional barriers such as lacking electric panel capacity or the authority to install equipment.

Expanding the educational resources on PG&E's EV Charging webpage and EV Savings Calculator can increase customers' understanding about what charging technology solutions are available and which solutions may work best for their specific charging setup. PG&E plans to conduct customer research to inform the development of a "home charging wizard" assessment tool with questions about a customer's charging needs and home characteristics to help guide a customer to potential charging solutions for them. This would build off the results of PG&E's Home Charging Priority Review Project and further enhance the usefulness of the EV Savings Calculator and PG&E's EV Charging webpage.<sup>51</sup>

PG&E's Empower EV program will be its first pilot offering financial support for residential charging. The program will install Level 1 and Level 2 charging at income-qualified single-family households, paying up to \$500 for the charger and \$2,000 for any panel upgrades required. There are also many state

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<sup>49</sup> <https://homeguide.com/costs/electric-car-charging-stations-cost#installation>

<sup>50</sup> The Smart Splitter offered by NeoCharge is an example of a 240V outlet splitter technology.  
<https://www.getneocharge.com/shop-pages/smart-splitters>

<sup>51</sup> [Senate Bill 350 Transportation Electrification Priority Review Projects Final Evaluation Report](#), pp. 385

and local programs that provide incentives for a Level 1 or Level 2 EV charger,<sup>52</sup> but there are none that seem to be focused on solutions that support installation of EV chargers in a non-traditional situation (e.g. no panel capacity or do not have authority to install equipment). A rebate for a technology solution that enables Level 2 charging at home while avoiding a panel upgrade would fill in a gap in both the Utility's and State's program offerings.

The Residential Charging Solutions pilot is designed to fill the multiple gaps in existing home EV charging options and will be implemented in phases to deploy simple solutions quickly and add even more robust options as findings from other programs like Empower EV become available. Phase 1 will improve on existing online tools to help customers understand options for their specific needs, including the build-out of a "home charging wizard" tool. Phase 2 is focused on technology solutions that avoid panel upgrades, which will help renters and customers for whom a panel upgrade would mean additional expenses, complexity, and delays in installing a charging solution that fits their driving needs.

Phase 3 will build on Phases 1 and 2, expanding the offerings to include financial support for upgrading the panel, alternative financing options to lower the upfront cost and hassle of installing an EV charger at home, or other innovative solutions. Many stakeholders emphasized the need for financial support for panel upgrades to install EV charging, especially for LMI customers. The specific design and roll-out of Phase 3 is dependent on lessons learned from the Empower EV program, which will include rebates for panel upgrades and is anticipated to launch in Q3 2021 and run for at least a year. It will also depend on the outcomes of the Clean Energy Financing Order Instituting Rulemaking (OIR),<sup>53</sup> with an anticipated decision date of Q3 2022, which will inform what alternative financing options should be offered to residential customers.

### *Stakeholder Feedback*

PG&E met with a wide range of stakeholders to receive feedback on the design of this pilot including market vendors, program implementers, CBOs, and EJ advocates. Stakeholders were supportive of the pilot as being able to provide a valuable near-term solution to expand access to charging and support EV adoption now. Specific examples of stakeholder feedback incorporated into the pilot design include:

- The pilot will require proof of Level 2 charger ownership in the rebate process to ensure that the technology solution is being used to support EV charging specifically and immediately.
- Phase 3 may include a panel upgrade rebate (dependent on Empower EV lessons learned) to provide the much-needed financial support for panel upgrades for equity customers.
- Residential customers in both single-family homes and MUDs are eligible, which provides as much support as possible to equity customers more likely to live in MUDs.

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<sup>52</sup> For example: Sonoma Clean Power GridSavvy Program, Silicon Valley Power EV Charging station rebate program, Clean Cars For All, Driving Clean Assistance Program, City of Lodi EV Charger rebates program. City of Roseville EV Charger rebate

<sup>53</sup> Rulemaking 20-08-022 - Order Instituting Rulemaking to Investigate and Design Clean Energy Financing Options for Electricity and Natural Gas Customers.

**Customer Eligibility**

All PG&E electric customers with proof of a Level 2 EV charger purchase are eligible for the technology solution rebate in Phase 2. However, whether the technology will benefit a particular customer is dependent on the specific technology solution(s) that PG&E offers in the pilot (e.g. an outlet splitter will only help a customer with a 240-volt outlet in or close to an area where a vehicle could charge). PG&E plans to issue a Request for Qualifications (RFQ) to the market to solicit solutions that enable Level 2 charging at home without the need for a panel upgrade. PG&E will determine customer eligibility specifics based on which solution(s) from the RFQ is chosen and will work closely with Energy Division Staff to update the pilot plan. More details on the RFQ process are included in the Program Administration section. Providing rebates and incentives for low-income individuals for installing EV charging infrastructure at residences is an eligible equity project under CARB's regulation.<sup>54</sup> Therefore, there will be targeted outreach to potentially eligible customers residing in the equity communities as outlined by D.20-12-027 to encourage participation.

Eligibility for solutions offered in a Phase 3 of the pilot will be determined as the design of the solutions is finalized in the future.

**Distribution of Revenue**

In Phase 1, PG&E will develop a "home charging wizard" assessment tool. The purpose of the wizard is to coach residential customers through the process of understanding their charging needs, their home setup, and the potential solutions available to them. It will take the useful information on the PG&E EV Charging page about finding "The Right Charging Station For You" one step further and help the customer understand their specific needs and options.

The wizard will ask the customer a series of questions about their current EV and home set-up, such as:

- Do you have access to an outlet near the location where you typically park?
- Do you rent or own your home?
- How much energy do you need to charge your vehicle? (via questions about battery size/vehicle type and daily commute mileage)
- Do you have more than one EV or are you considering purchasing more than one EV?

Based on the answers to these questions, the customers would be provided a list of all their potential solutions (including the technology solution if relevant) and resources for how to find more information. It will also be valuable to link to this form from the EV Savings Calculator where there is an option for the customer to get help choosing which "Home Charging Availability" option is correct. Currently, the EV Savings Calculator asks three questions on home charging and tells the customer they would have "no charging availability" at home if they can't have an electrician install a charging station or if there is no regular power outlet close to where they park their car. The home charging wizard would help fill in this gap in customer education by providing a more robust set of questions and charging solutions to ensure that no customer feels left behind.

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<sup>54</sup> 17 CCR § 95483 (c)(1)(A)(6)(a)(vi)

Depending on the technology solution or solutions that PG&E selects from the RFQ, PG&E will offer a rebate of a set amount off the price of the technology solution(s), a point-of-purchase incentive of a set amount off the price of the technology solution(s), or bulk purchase the solution and offer it free of charge to customer participants for Phase 2 of the pilot.

The specific method of rebate/incentive/technology issuance is again dependent on the specific technology solution(s) selected. PG&E intends to maintain administrative simplicity in the implementation of the pilot and may offer the technology on PG&E's online Marketplace, work with the selected vendor(s) to offer the rebate through their website, or some other method.

### **Program Administration**

PG&E will administer the Residential Charging Solutions Pilot internally but may change that approach to a third-party based on customer participation, market factors, and the to-be-determined needs of Phase 3. In Phase 1, PG&E will update its website and tools to include a "home charging wizard" application, which may be developed internally or with a third-party. Concurrently, PG&E will issue an RFQ to identify cost-effective technology solutions, select vendor(s), and implement a rebate (dependent on the results of the RFQ). Finally, PG&E will design and launch a Phase 3 offering based on lessons learned from Phases 1 and 2, the Empower EV program, the Clean Financing OIR, and the state of the market.

Pilot implementation responsibilities for PG&E include:

- **Pre-launch activities:**
  - Conduct customer research to inform development of the customer assessment form (discussed below under ME&O) and coordinate with PG&E Solutions Marketing and IT to update webpages and the EV Savings Calculator as necessary. Support PG&E ME&O activities.
  - Manage the RFQ process and select technology solutions to offer in the pilot based on the solution's ability to enable Level 2 charging without triggering a panel upgrade, price point, safety certifications, and customer experience, among other factors. PG&E will work with the internal technology testing team to verify the safety of the potential solutions to be offered to customers.
  - Develop the detailed pilot implementation plan and work with the technology solution vendor(s) as appropriate to set up rebate/incentive/technology issuance process.
  - Develop an EM&V plan to provide insights into each Phase of implementation.
- **Pilot execution activities:**
  - Manage the rebate/incentive/technology issuance process, manage interactions with the technology vendor(s), provide customer support (dependent on the issuance method).
  - Track program data, review progress, manage reporting, handle ad hoc requests and issues.
  - Coordinate ME&O activities with PG&E's Solutions Marketing team and technology vendor as necessary.
  - Collect lessons learned and data from relevant programs and proceedings in order to design a Phase 3 of the pilot.

The list of implementation responsibilities is not intended to be exhaustive. PG&E will further develop the implementation details of the pilot for the RFQ and technology solution selection and then will work closely Energy Division Staff to update them on the final pilot implementation plan.

## **ME&O**

As mentioned earlier in Section B.3, the ME&O plan for this pilot will include a general ME&O plan and an equity-focused ME&O plan to be implemented as part of the CBO partnership.

The intended general ME&O plan will be executed by PG&E and will include the development and deployment of the “home charging wizard” in Phase 1 of the pilot. The specific customer outreach tactics for Phase 2 will depend on the final technology solution(s) selected, which will determine the specific type of customer who may be eligible. The PG&E Marketing team will leverage existing channels to integrate messaging about this pilot with information about EV rates, the pre-owned EV rebate, and other applicable programs.

The equity-focused ME&O plan for Phase 2 of the pilot will be executed as part of the CBO partnership and will leverage efforts to target equity customers for other PG&E EV programs. Collateral for the pilot will be co-created by the CBOs and PG&E and shared with customers as part of the outreach for other LCFS programs, Empower EV, energy efficiency programs, and others as applicable. The intent of this effort is to present customers with a suite of programs and offerings to support their transition to EVs and provide guidance for program applications. For example, customers interested in applying for the Pre-owned Rebate may also be eligible for the Residential Charging Solutions Pilot and therefore will be presented collateral on both programs for guidance on eligibility and completing their applications.

Some specific ME&O tactics and responsibilities for each entity may include:

- **PG&E activities:** Developing the “home charging wizard” tool, executing social media and email campaigns to existing customer segments (including and specifically equity customers located in DACs, low-income census tracts, Tribal lands, or rural census tracts), co-marketing with existing PG&E EV and energy programs (e.g. energy efficiency), updating to PG&E’s EV webpages and EV Savings Calculator.
- **CBO activities:** Co-marketing with ME&O efforts to target customers for other LCFS programs including Pre-Owned EV rebate, co-creating marketing collateral to educate customers on the program, executing targeted marketing to customers located in DACs, low-income census tracts, Tribal lands, or rural census tracts.

The above list of ME&O activities and specific strategies is not exhaustive and may be adjusted based on technology solution selected and customer participation as the pilot is implemented. These ME&O efforts will be critical to educating customers about at home EV charging solutions and encourage use of the technology solution with the rebate. ME&O efforts will be regularly evaluated and adjusted throughout the pilot as discussed further in the program evaluation section.

The ME&O activities for the pilot will be specifically designed to make eligible customers aware of the technology solution rebate and provide resources about home charging that are incremental to what is currently offered. The activities are not duplicative of any existing ratepayer funded ME&O and will leverage existing marketing channels and program outreach to include information about the rebate.

## Program Evaluation

As described in the Portfolio Structure section, evaluation includes both regular assessment of pilot performance and customer satisfaction, as well as more formal reports and research studies determined by the specific needs of the pilot. The pilot's evaluation activities will include:

- **Key metrics:** PG&E will collect and analyze pilot data on a regular cadence to assess the effectiveness of the pilot. Key data points include:
  - Number of rebates issued, number of rebates issued to equity customers
  - Number of customer home charging assessments completed
  - Number of clicks to home charging assessment page, number of clicks to the technology solution webpage
  - Number of referrals to technology solutions webpage from other programsPG&E will include additional data collection metrics for the pilot once the pilot implementation plan is finalized.
- **ME&O effectiveness:** PG&E will work with the CBOs and PG&E's marketing team to evaluate progress of ME&O efforts and identify opportunities for process improvements on a quarterly or semi-annual basis.
- **Additional studies:** PG&E will assess the specific needs, challenges, and opportunities of the pilot as it is implemented and will suggest additional traditional evaluations or specific research studies as appropriate.

## Estimated Budget and Implementation Schedule

For Phase 1 of the pilot, PG&E has allocated [REDACTED] general ME&O budget in 2022 for the development of the "home charging wizard". For Phase 2 of the pilot, PG&E is targeting to issue approximately 10,000 rebates over the three-year pilot. The rebate target is based on PG&E best estimation of eligible customers who are renters and have an existing 240v outlet in their garage and could benefit from an outlet splitter technology. The rebate target may need to be adjusted once the specific technology solution is identified. Based on market research and discussions with implementers, PG&E has set the rebate amount at [REDACTED]. The rebate amount may be adjusted slightly based on the type of technology solution(s) selected, the cost of the solution(s), and the specific method of issuing the solution(s). The estimated total pilot budget including rebates, program administration and ME&O is \$7.26 million. The cost of a potential Phase 3 of this pilot is not included in

Table 15 as it will be proposed in a future update to the Implementation Plan. Estimated annual spend for the pilot is detailed in the table below.

**Table 15: Estimated Budget for Residential Charging Solutions Pilot (Phase 1 and 2)**

Budget in Millions	2021	2022	2023	2024	2025	Total
Tech. Solutions Rebate - Non-equity						
Tech. Solutions Rebate - Equity						
PG&E Administration	\$0.05	\$0.15	\$0.15	\$0.15	\$0.06	\$0.56
General ME&O	\$0.00	\$0.27	\$0.02	\$0.02	\$0.00	\$0.30
Equity ME&O						
Evaluation	\$0.00	\$0.04	\$0.04	\$0.04	\$0.04	\$0.15
<b>TOTAL</b>	<b>\$0.05</b>	<b>\$1.75</b>	<b>\$2.68</b>	<b>\$2.68</b>	<b>\$0.09</b>	<b>\$7.26</b>

*Note: numbers may not add up due to rounding*

As mentioned earlier, the budget estimates may change based on adjustments to the rebate amount, ME&O strategies, customer participation, and market factors. PG&E may also extend the length of the pilot based on customer interest and portfolio needs and will work closely with Energy Division Staff on any adjustments to the pilot. PG&E will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report.

Assuming PG&E receives approval for this advice letter by Q3 2021, PG&E currently anticipates beginning issuing pilot rebates in Q3 2022 as shown in the schedule below.

**Table 16: PG&E’s Preliminary Schedule for Residential Charging Solutions Pilot Launch**

June 2021	PG&E files Tier 2 AL
Q3 2021	Estimated timing of possible Commission approval of Tier 2 AL <sup>55</sup>
Q1 2022	PG&E begins Phase 1 and issues RFQ for Phase 2
Q2 2022	PG&E completes Phase 1 and selects technology solution(s) and sets up Phase 2
Q3 2022	PG&E launches ME&O campaign and begins issuing rebates and executing Phase 2

<sup>55</sup> CPUC Zero-Emission Vehicle Action Plan - [https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC\\_ZEV-Action-Plan-te-mtx-2.5.pdf](https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC_ZEV-Action-Plan-te-mtx-2.5.pdf)

**Program #4: Resilient Charging Pilot**

The resilient charging pilot will 1) identify EV drivers in High Fire Threat Districts (HFTDs) and areas likely to be impacted by Public Safety Power Shutoff (PSPS) events and survey them about their interest in Vehicle-to-Home (V2H) solutions to support their resiliency, 2) develop a baseline for EV driver charging behavior before a PSPS event and 3) test customer experience and valuation of a third-party platform that provides proactive communication and/or managed charging of EVs as a resiliency service. Dependent on CPUC approval of the pilot, PG&E plans to set up the pilot in Q4 2021/Q1 2022 and launch the pilot in Q2 2022.

Resilient Charging Pilot	
Customer Segment	Residential customers in High Fire Threat Districts and areas likely to be impacted by PSPS events
Program Design	Third-party software to communicate with customers and/or actively manage EV charging for the customer prior to a PSPS event to ensure they are fully charged during an emergency
Implementation Structure	Third-party implemented – implementer responsible for customer enrollment, communication, and managed charging during events
Program Goals	<ul style="list-style-type: none"> <li>• Increase resiliency for EV customers during power shutoffs</li> <li>• Improve data on EV customers in targeted areas and their valuation of V2H solutions</li> <li>• Test customers interest/valuation of direct load control service</li> <li>• Identify lessons learned about managed charging that can inform other programs</li> </ul>
Timeframe & Launch Date	One year; Q2 2022 (anticipated)
Total budget	\$4.76 million
Funding source	Residential holdback revenue

**Policy and Market Support***Barriers Addressed*

Per section 3.10 of D.12-20-027, the IOUs must expend up to 20% of the annual LCFS holdback proceeds on resiliency projects that benefit existing or future EV drivers. The Decision defines those resiliency projects in two categories: 1) projects that lead to the installation of EV charging facilities at specified locations or other innovative ways that support charging and 2) pilot technologies that allow EV owners to use their EVs in the event of power shut-offs.

The primary resiliency barrier addressed in this pilot is customers' ability to charge their vehicles in the event that grid outages prevent them from fueling their EVs where and when they normally would. One of the biggest barriers to EV adoption is the fear of not being able to use the EV due to a depleted battery and the unavailability of charging.<sup>56</sup> This concern is magnified with the risk of being unable to drive an EV during a disaster. PG&E is committed to reducing the impacts of severe fire weather on the electric system and has been deeply focused on effectively executing successful, customer-centric PSPS events as

<sup>56</sup> Singer, Mark "The Barriers to Acceptance of Plug-In Electric Vehicles: 2017 Update" National Renewable Energy Laboratory. 2017. <https://www.nrel.gov/docs/fy18osti/70371.pdf> (Accessed on March 13, 2021)

necessary. Providing a solution that can help ensure an EV customer has an adequate charge for their vehicle before the power is potentially shut-off can help increase the resiliency of current EV drivers and make potential EV-buyers customers more confident in electrifying. Additionally, ensuring that customers have a fully charged EV prior to a grid outage will be critical for the success of V2H solutions that would further support a customers' resiliency.

### *Program Alignment*

Pursuant to requirement 6 in section 3.11, the Resilient Charging Pilot is well-aligned with other TE-related utility resiliency efforts. PG&E's current EV resiliency efforts include continuing to improve communications to EV customers to alert them to where energized charging is during a PSPS event and the deployment of the DC Mobile Fast Charging Pilot, as required by the PSPS Phase 2 OIR Decision 20-05-051. That pilot will test the feasibility and cost-effectiveness of deploying mobile DC fast chargers in highly impacted PSPS locations within PG&E's service territory. It will be conducted during the 2021 wildfire season and will produce key lessons learned to inform future EV resiliency pilots, including those funded by LCFS. PG&E's current EV resiliency efforts provide important resiliency support for EV drivers during de-energization. PG&E's Resilient Charging Pilot proposed here aims to provide more proactive support for EV drivers *before* a PSPS event, testing various ways to encourage active charging in advance of an event.

The pilot is also aligned with Commission policy on vehicle-grid integration (VGI) pursuant to requirement 7 in section 3.11. The Commission's VGI Strategy Decision<sup>57</sup> aims to maximize the use of feasible and cost-effective EV integration into the electrical grid by 2030 and gives utilities the opportunity to research VGI applications.<sup>58</sup> PG&E plans to focus its VGI piloting efforts authorized by the VGI Decision on bidirectional charging and high value VGI use cases. The Resilient Charging Pilot complements PG&E's bidirectional research by exploring one-directional load management, avoiding duplication of pilots and aligning with recommendations of the VGI Working Group<sup>59</sup> and the VGI Decision's section 6.3. by testing direct control of EV charging by a third-party which could provide benefits to the grid if deployed at a large scale.

PG&E identified this resiliency pilot idea as a feasible, cost-effective and potentially scalable solution through a Request for Information (RFI) issued in January 2021 in compliance with D.20-05-051. PG&E issued the RFI to gauge general market and vendor interest and better understand the available technologies to implement different types of EV resiliency solutions, including a solution that focuses on enhancing customer communication by identifying, analyzing, and incentivizing EV charging in advance of de-energization events. PG&E hypothesizes that proactive charging could be more cost-effective than other reactive EV resiliency emergency services, like mobile DCFC, and will use this pilot to gather valuable data about EV charging behavior in the near-term while gathering results and lessons learned from other ongoing efforts.

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<sup>57</sup> [D.20-12-029](#)

<sup>58</sup> Page 20, VGI Working Group Final Report: <https://gridworks.org/wp-content/uploads/2020/07/VGI-Working-Group-Final-Report-6.30.20.pdf>

<sup>59</sup> VGI Working Group Final Report: <https://gridworks.org/wp-content/uploads/2020/07/VGI-Working-Group-Final-Report-6.30.20.pdf>

*Stakeholder Feedback*

PG&E engaged with a variety of stakeholders on this pilot proposal pursuant requirements in section 3.11 including local governments, CBOs, EJ organizations and State Agencies. Stakeholders provided valuable feedback on the scope and design of the pilot and supported the value of the pilot in providing resiliency for customers. Specific examples of stakeholder feedback incorporated into the pilot design include:

- The pilot will leverage customer outreach and participation in the Pre-Owned EV Rebate pilot and other equity EV programs as pipelines for customer acquisition in order to enroll a diverse set of EV drivers into the pilot.
- PG&E will work closely with local governments and emergency agencies to coordinate specific messaging to customers in the pilot in the event of a PSPS.
- PG&E will develop mitigations to ensure that the managed charging does not incur above-normal EV charging costs for the customer.
- Likewise, PG&E will develop controls to avoid EV managed charging during peak hours unless absolutely necessary, particularly for local capacity-constrained areas.

**Customer Eligibility**

This pilot is targeted at customers who live in HFTDs and areas likely to be impacted by PSPS. The specific customer eligibility will depend on the technical capabilities of the third-party software. For example, one software platform may be able to directly control the charging of an EV through specific EVSE brands and another platform may be able to directly control the charging of an EV through vehicle telematics, but only with certain models of EVs. The intent of the pilot is to have a diverse set of pilot participants – diverse in geography, demographics, and type of EV and charger. PG&E will use the scope of work for the pilot implementer selection process to solicit software solutions that enable as diverse a group of pilot participants as possible and finalize specific customer eligibility requirements in the pilot implementation plan.

There will also be targeted outreach to potentially eligible customers who reside in both HFTDs and areas like to be impacted by PSPS in equity communities, such as DAC, rural, and low-income census tracts as outlined by D.20-12-027 to encourage participation. Participation by equity customers will be critical to generating lessons learned that are representative of PG&E’s diverse customer base.

**Distribution of Revenue**

PG&E will pay a third-party to implement each of the three aspects of the pilot: 1) EV customer identification in select areas, 2) development of baseline charging behavior for EV customers in select areas before a PSPS and during “blue sky” conditions, and 3) testing customer use and valuation of the software platform and managed charging.

Customers will receive an incentive to enroll in the pilot and will be placed into different groups to test different aspects of the service. An example of what the structure of participant groups could look like in

the pilot is shown in Table 17 below. The actual structure will be determined through further discussions with stakeholders and with the selected pilot implementer.

**Table 17: Possible Participant Groups in Resilient Charging Pilot**

Pilot Group	Activities After Enrollment
Control Group	Enrolls in the pilot but does not receive any EV charging reminder communication (receives PG&E's standard, non-EV driver specific PSPS communications) or have charging actively managed.
Participant Group 1	Receives EV charging reminder communications in advance of events after enrolling in the pilot.
Participant Group 2	Receives EV charging reminder communications and managed charging if the vehicle is plugged in before the event.

PG&E is considering offering incentives to test the value of direct load control for customers and/or cover the cost of any managed charging that occurs during peak hours during a pilot event. PG&E has allocated a portion of the budget for customer incentives and will determine the exact distribution method and payment amount based on the final pilot design and the capabilities of the selected implementer.

The specific details of the participant group requirements and activities such as timing of communications in advance of an event, requirement for participants to be plugged in, and necessary level of charge, will be determined in collaboration with stakeholders and the selected implementer. PG&E will work with Energy Division Staff to finalize the pilot implementation details before pilot launch.

**Program Administration**

PG&E will contract with a third party to implement all aspects of the pilot, except for a survey of customers about vehicle-to-home resiliency solutions which PG&E will conduct as part of Phase 1. While the EV detection and baseline development components of the pilot create an important foundation for the testing of the software platform, the specific qualifications to successfully execute on those components may be distinct from the qualifications necessary to successfully execute on the testing of the software platform. Therefore PG&E may select a highly qualified and cost-competitive implementer via RFP or direct award to address all components of the pilot or only the testing of the software platform or the EV identification and baseline development in their response.

Once contracted, the implementer will be responsible for coordinating with PG&E as necessary and executing on the following activities for each component of the pilot:

- **Pre-launch activities:** The implementer will work with PG&E to finalize the pilot structure and develop a detailed implementation plan, coordinate ME&O with PG&E and CBO partners, set up data sharing processes with PG&E for data from EV identification and platform testing, and develop an EM&V plan with the PG&E team.
- **Pilot implementation activities:**
  - **EV detection:** The implementer will launch its proposed strategy to detect EV drivers in select HFTD areas (e.g. using disaggregation of utility AMI data, vehicle telematics). The specific detection method will be determined from the implementer selection process.

- **Baseline development:** Based on the method used and data collected from the EV detection component, the implementer will work with PG&E to assess historical charging behavior of identified EV drivers in select areas.
- **Participant enrollment:** The implementer will use its EV detection results, plus data PG&E has on existing EV customers from participation in other programs, to enroll customers in one of five participant groups in the pilot. The implementer will be responsible for demonstrating the vehicle, geographic and demographic diversity of the pilot participants.
- **Software platform testing:** The implementer will manage a minimum of four testing events (if there are fewer than four PSPS events called during the pilot, then the implementer will run a simulated event), including notifications and managed charging. After the events, the implementer will report data from each testing event to the PG&E team.
- **Pilot evaluation activities:** The implementer will be responsible for surveying pilot participants about their experience in the pilot and about their interest in V2H solutions and their current home charging set up. The Implementer will also collect and report key metrics for the pilot as described in more detail in the program evaluation section below.

PG&E will also support pilot implementation and will be responsible for:

- **Pre-launch activities:** PG&E will be responsible for running the RFP or direct award process, setting up the selected implementer(s), working with implementer to develop the detailed pilot implementation plan, supporting PG&E ME&O activities. PG&E will also develop a survey to better understand customers' home resiliency needs particularly around vehicle-to-home solutions.
- **Pilot execution activities:** PG&E will also be responsible for the execution of customer survey about V2H resiliency solutions, general implementer oversight, implementer payments, data review and reporting, ME&O coordination, pilot evaluation, and ad hoc requests.

Neither of the lists of activities for the third-party implementer nor for PG&E are intended to be exhaustive. PG&E will further develop the implementation details of the pilot for the SOW and RFP or direct award process and then will work closely with the Implementer to finalize the pilot implementation plan.

## ME&O

Given the specific customer eligibility requirements for the resiliency pilot per D.20-12-027, the Implementer will be responsible for all ME&O for the pilot with minor support from PG&E to integrate information about the pilot in existing efforts. The specific customer outreach tactics will depend on the selected implementer and will likely leverage the first phase of the pilot to identify EV drivers in HFTD and areas likely to be impacted by PSPS. While the ME&O efforts will be solely targeting customers in the select areas, the Implementer will be responsible for ensuring geographic, demographic, and

technologic diversity among pilot participants. PG&E will develop the specific participant diversity targets for the Implementer through the RFP process.

The ME&O efforts for the pilot will also be closely coordinated with existing customer communication from PG&E's PSPS team.

Some specific ME&O tactics and responsibilities for each entity may include:

- **PG&E activities:** Supporting customer outreach through message integration with existing PG&E EV and energy programs such as the Pre-Owned EV Rebate pilot and existing PG&E resiliency programs; coordinating efforts with customer outreach and preparedness messaging in advance of PSPS events.
- **Implementer activities:** Executing targeted customer outreach via email campaigns leveraging CFR/CCFR/Pre-Owned EV rebate customer lists and EV customers identified through EV Detection efforts. Details of implementer ME&O activities will be dependent on the specific implementer selected.

This is not an exhaustive list of ME&O activities and specific strategies may be adjusted based on the implementer selected and customer participation as the pilot is implemented. These ME&O efforts will be critical to enrolling a diverse set of customer participants in the pilot in order to produce valuable and widely applicable lessons learned. ME&O efforts will be regularly evaluated and adjusted throughout the pilot as discussed further in the program evaluation section.

The ME&O activities for the pilot are exclusive for customer acquisition for the pilot and are therefore not duplicative of any existing ratepayer funded ME&O. PG&E, in coordination with the implementer, will leverage existing marketing channels and program outreach to include information about the pilot.

## **Program Evaluation**

As described in the Portfolio Structure section, evaluation includes both regular assessment of pilot performance and customer satisfaction, as well as more formal reports and research studies determined by the specific needs of the pilot. The pilot's evaluation activities will include:

- **Key metrics:** PG&E will collect and analyze pilot data on a regular cadence to assess the effectiveness of the pilot. Key data points include:
    - Geographic location and number of EVs in HFTD and areas likely to be impacted by PSPS participating in pilot
    - Historical charging behavior of EV drivers in selected areas before, during, and after previous grid outages and in blue sky conditions
    - Charging behavior of EV customers in each participant group
    - Charging statistics from EV charging during pilot events including time, duration, cost, demand, and utilization
    - State of charge of vehicles before the event
    - Customer demographics
    - Number of customers and vehicle make/model in each group who responded to the event
- PG&E will include additional data collection metrics for the pilot once the implementer is contracted and the pilot implementation plan is finalized.

- **ME&O effectiveness:** PG&E will set up a regular cadence of status reporting with the implementer (e.g. weekly/monthly) to evaluate progress of ME&O efforts and identify opportunities for process improvements. PG&E will also regularly evaluate internal ME&O efforts to identify any need for change.
- **Customer experience:** PG&E will review customer survey responses and document key customer insights to inform pilot improvements and customer outreach.
- **Additional studies:** PG&E will assess the specific needs, challenges, and opportunities of the pilot as it is implemented and will suggest additional traditional evaluations or specific research studies as appropriate.

**Estimated Budget and Implementation Schedule**

PG&E is targeting to enroll 8,000 EV customers for the testing of the software platform during the one-year pilot. The target customer enrollment is based on the estimated number of EV drivers in HFTDs and areas likely to be impacted by PSPS and the design of the software testing phase to generate statistically significant lessons learned. Based on market research and discussions with implementers, PG&E has made an assumption of [REDACTED] for the enrollment incentive and budgeted [REDACTED] test the value of direct load control for customers and/or cover the cost of any managed charging that occurs during peak hours during a pilot event. The incentive amounts may be adjusted based on the final design of the pilot participant groups. The technology testing costs were developed in discussions with market vendors and include costs for the EV detection solution, data analysis for baseline development, customer communication, and managed charging. The estimated total pilot budget including incentives and technology testing, pilot administration and ME&O is \$4.76 million. Estimated annual spend for the pilot is detailed in the table below.

**Table 18: Estimated Budget for Resilient Charging Pilot**

Budget in Millions	2021	2022	2023	Total
Incentives + Tech. Testing: Non-equity	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Incentives + Tech. Testing: Equity	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Implementer Program Admin	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
PG&E Administration	\$0.10	\$0.21	\$0.11	\$0.42
General ME&O	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Equity ME&O	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Evaluation	\$0.00	\$0.05	\$0.05	\$0.10
<b>TOTAL</b>	<b>\$0.10</b>	<b>\$4.48</b>	<b>\$0.17</b>	<b>\$4.76</b>

Budget estimates may change based on adjustments to the incentive amount, ME&O strategies, customer participation, and market factors. PG&E may also extend the length of the pilot based on customer interest and portfolio needs and will work closely with Energy Division Staff on any adjustments to the pilot. PG&E will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report.

Assuming PG&E receives approval for this advice letter by Q3 2021, PG&E currently anticipates launching the pilot in Q2 2022 as shown in the schedule below.

**Table 19: PG&E’s Preliminary Schedule for Resilient Charging Pilot Launch**

June 2021	PG&E files Tier 2 AL
Q3 2021	Estimated timing of possible Commission approval of Tier 2 AL <sup>60</sup>
Q4 2021	PG&E issues RFP or begins direct award process
Q1 2022	PG&E and selected implementer begin EV detection in select areas
Q2 2022	Implementer develops baseline and launches participant enrollment

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<sup>60</sup> CPUC Zero-Emission Vehicle Action Plan - [https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC\\_ZEV-Action-Plan-te-mtx-2.5.pdf](https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC_ZEV-Action-Plan-te-mtx-2.5.pdf)

**5. Non-Holdback Pilot Proposals**

Pursuant to D.14-12-083, PG&E provides the following information on how it will distribute credits generated by non-residential customers.

As described in Section II.A.1, PG&E generates credits from charging that occurs at PG&E workplaces and PG&E-owned chargers in the EVCN program. More detail on PG&E’s non-residential credit generation can be found in the LCFS Annual Report. There are different revenue distribution requirements for non-residential credit revenue than for the holdback credit revenue as outlined in D.20-12-027. Primarily, PG&E must use the credit revenue to benefit current or future EV drivers in California per CARB’s LCFS regulation.<sup>61</sup> PG&E is proposing one Non-Holdback Pilot for the use of the non-residential credit revenue in this Implementation Plan.

**Program #5: Research and Innovation Fund Pilot**

The purpose of the Research and Innovation Fund is to support small proof-of-concept pilots for nascent technologies and research studies to fill in data gaps in support of accelerating widespread TE.

<b>Research and Innovation Fund Pilot</b>	
Customer Segment	All
Program Design	Fund small proof-of-concept pilots and research studies
Implementation Structure	PG&E implemented – internal Steering Committee will evaluate study ideas
Program Goals	<ul style="list-style-type: none"> <li>• Support research and development in TE technology</li> <li>• Enable a fail fast, fail forward approach to supporting EV adoption through utility pilots</li> <li>• Generate lessons learned that can inform other PG&amp;E TE programs and plans.</li> </ul>
Timeframe & Launch Date	Rolling; Q2 2022 (anticipated)
Total budget	\$0.16 million (per year)
Funding source	Non-residential credit revenue

The EV market is constantly changing and new technology being developed has the potential to significantly impact the scale and speed of EV adoption in California. Utility pilots are important ways to test technologies and strategies to support customers, and large utility programs are critical to deploying those solutions to the market at scale. However, before a technology or strategy can be used in a pilot or program, it must first be vetted for its safety, capabilities, and ability to meet specific customer needs. This often requires securing funding through a lengthy and administratively intensive process. A specific fund focused on quickly assessing TE technology solutions and filling in data gaps can complement other innovation programs, build off the current work and partnerships that are supporting EV adoption, and help accelerate the EV market.

<sup>61</sup> 17 CCR § 95491 (d)(3)(A) paragraph 2, pp 196.

There are existing innovation programs to support research and development at the utility including the Electric Program Investment Charge (EPIC), which supports the development of non-commercialized new and emerging clean energy technologies in California and provides assistance to commercially viable projects, and the in-development Joint Utilities' VGI/TE Emerging Technology Program, which supports research on customer needs and testing of TE technologies in the development stage. The EPIC program has funded TE-related pilots but has a broader focus to support all types of clean energy technologies and requires a more involved application process, where applicants have limited occasional windows to request funding. The VGI/TE Emerging Technology Program, which is still in development, is proposed to be specifically focused on supporting VGI development and deployment, making the eligible project list more narrow than general TE technology solutions.

The LCFS Research and Innovation (R&I) Fund would provide incremental support to these existing innovation efforts specifically for small, proof-of-concept TE emerging technology projects. The R&I fund projects would be much smaller in scale – hundreds of thousands of dollars compared to the millions in EPIC and the VGI/TE Emerging Technology Program each year – and would not necessarily require the technology to be scaled after the project depending on the results. The Fund would also be complementary to the EPIC efforts by providing a more streamlined vetting process due to the smaller size of the pilots and the non-ratepayer source of funding. The CET team administering the R&I Fund will also work closely with the VGI/TE Emerging Technology Program Governance Team, once it is established at PG&E, to ensure there is no duplication and that the R&I Fund projects are complementary. The R&I Fund can also provide additional financial support, if necessary, to projects in the VGI/TE Emerging Technology Program or fund a specific project that did not meet one of specific program requirements but would still be valuable to test.

PG&E met with several stakeholders during the design of this pilot who were supportive of the pilot design and recognized the need for additional support for research and development in the EV market.

Aligned with PG&E's LCFS guiding principles discussed in Section B.1, the R&I Fund objectives are to:

- Support current and future EV drivers in California through TE research and development
- Fill in information gaps regarding customer needs, technology capabilities, costs, and benefits
- Align with market and customer needs
- Complement existing pilots and processes

PG&E proposes to leverage PG&E's existing TE-related work and the VGI/TE Emerging Technology Program process to identify technology barriers. Potential project categories that would be funded by the R&I fund could include:

- Data & analysis (e.g. market trends and customer needs)
- Hardware (e.g. safety testing of a streetlight-mounted charger)
- Software (e.g. discrete testing of automated load management technology)

PG&E will establish a uniform and transparent method of project intake and evaluation and establish a cross-cutting Steering Committee with members from PG&E's Clean Energy Transportation, EPIC, VGI, Grid Planning, and Grid Innovation teams to evaluate the proposed projects for funding. PG&E will use existing facilities, like the Applied Technology Services, to test proof-of-concepts and aim to leverage funding via partnership where feasible. To minimize the administrative costs of the pilot, PG&E proposes

executing on the project intake and evaluation process once or twice a year. Using a stage/gate process, the CET team will develop project ideas, ensure projects are in line with the Fund’s objectives and state, regulatory, and IOU initiatives and select the projects with the highest potential and feasibility. CET will then present the prioritized list of projects to the Steering Committee who will evaluate the projects based on certain weighted criteria including:

- Market fit –
  - What specific barrier to TE - access to infrastructure, total cost of ownership, education and awareness, grid modernization - does this project address?
  - How would this specifically support the State’s TE goals?
  - How would this specifically support PG&E EV customers?
  - What is the perceived functional/economic value?
- Technology fit –
  - How novel/innovative is the project?
  - What are the difficulties in developing the technology? What is the product range and growth potential for the technology?
  - How would PG&E scale this technology if tested successfully?
- Business fit –
  - Which PG&E TE strategy pillars would this project “move the needle” on?
  - What internal resources are available to support this project if tested successfully?

Once a project was selected for funding, the appropriate team within PG&E will run the project, evaluate the success, and document results and lessons learned to be shared internally, with Energy Division and CARB staff, and others externally as appropriate.

PG&E will only use revenue from non-residential credits, which are currently generated from charging at PG&E workplaces and EVCN Charge Sponsor sites, for this pilot and will never exceed the amount of non-residential credit revenue that is in the balancing account. PG&E estimates that it will fund \$100,000 worth of projects and approximately \$60,000 in program administration and evaluation each year. The annual budget is based off of credit generation in 2020 and 2021 which was significantly impacted by shelter-in-place orders due to COVID-19. As shelter-in-place orders are lifted and people begin to return to work and their daily travel behaviors, EV charging, and therefore credit generation, at PG&E workplace sites and EVCN Charge Sponsor sites may increase and PG&E may adjust the annual budget of the R&I Fund projects accordingly. The program administration costs for the pilot are expected to remain fixed and the administration cost to project funding ratio will decrease as more credit revenue is generated for the project funding. There is no ME&O necessary for the implementation of this pilot since it is an internal fund. Estimated annual spend for the pilot is detailed in the table below.

**Table 20: Estimated Budget for Research and Innovation Fund Pilot**

Budget in Millions	Annual
Project Funding	\$0.10
Program Administration & Evaluation	\$0.06
<b>TOTAL</b>	<b>\$0.16</b>

PG&E does not propose an end date to this pilot and will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report. Any different or additional pilots for the use of non-residential credit revenue will be proposed in a Tier 2 AL.

Assuming PG&E receives approval for this advice letter by Q3 2021, PG&E currently anticipates launching the pilot in Q2 2022 as shown in the schedule below.

**Table 21: PG&E's Preliminary Schedule for Research and Innovation Fund Pilot Launch**

June 2021	PG&E files Tier 2 AL
Q3 2021	Estimated timing of possible Commission approval of Tier 2 AL
Q1 2022	PG&E develops project intake and evaluation process and sets up Steering Committee
Q2 2022	PG&E begins funding projects

### **III. REVENUE RETURN TO GAS CUSTOMERS**

PG&E provides the following information regarding its plans for the return of revenue to eligible gas customers pursuant to Item 7.a through 7.i of Appendix A: Tier 2 Advice Letter Filing Requirements in D.14-12-083, as well as the information requested in the discussion sections of D.14-12-083.

#### **A. Summary of Changes to PG&E's 2015 LCFS Implementation Plan**

PG&E will continue returning revenue from its compressed natural gas (CNG) proceeds as described in the 2015 implementation plan. The program was developed in response to Items 7.a through 7.j of Appendix A: Tier 2 Advice Letter Filing Requirements in D.14-12-083, as well as information requested in the discussion sections of D.14-12-083. The revenue return program will not change from the original design. However, how PG&E generates credits and revenue has changed, and this is described below.

##### **1. Renewable Natural Gas Pilot**

PG&E filed Advice Letter 3961-G and received approval in June 2018 to scope out a voluntary renewable natural gas (RNG) pilot. The scope of this three-year pilot is to procure renewable natural gas and replace 100% of the CNG dispensed at PG&E's natural gas stations for internal and external fleet use. PG&E executed a contract with the RNG provider in October 2019. Per this contract, PG&E provides the vendor with meter reads of CNG dispensed at PG&E-owned stations and the vendor reports volumes on a quarterly basis to CARB to receive LCFS CNG credits. In return, PG&E receives revenue from the vendor which will be returned to customers as in previous years, minus any administrative costs incurred by PG&E.

Since RNG has a lower carbon intensity than CNG, PG&E generates more credits – and receives more revenues – through the pilot than it would have otherwise.<sup>62</sup> This in turn will benefit PG&E's CNG

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<sup>62</sup> PG&E receives all revenues from base credits – revenues PG&E would have generated if it were not participating in this pilot – plus a portion of the incremental credits, per the contract with the RNG provider.

customers as they will receive larger rebates in addition to climate benefits from using much lower-carbon fuels.

**B. 2021 Gas Program**

PG&E will continue to run one program for its gas customers, the Renewable Natural Gas Fuel Credit.

**Program #6: Renewable Natural Gas Fuel Credit**

The Renewable Natural Gas Fuel Credit is an on-bill credit split across all active customers using PG&E’s CNG stations, based on each customer’s share of the total usage.

Renewable Natural Gas Fuel Credit	
Customer Segment	Residential and commercial customers fueling CNG vehicles at PG&E-owned stations
Program Design	Annual on-bill credits that divide the annual LCFS revenue between customers based on their pro-rata share of CNG usage.
Implementation Structure	PG&E implemented – team calculates on-bill credit amounts and issues credits to customer bills
Program Goals	<ul style="list-style-type: none"> <li>• Support CNG vehicle adoption (especially in segments that are difficult to electrify)</li> <li>• Decrease carbon emissions with low- or negative-carbon RNG</li> </ul>
Timeframe & Launch Date	Rolling; launched in 2016
Total budget	██████████ (for 2021 return)
Funding source	CNG credits

**Policy/Market Support**

Ordering Paragraph 2 of D.14-12-083 provided gas utilities with two options to return their gas revenues: a point-of-sale price discount on CNG fuel, or an on-bill credit. PG&E proposed and was approved to use an on-bill credit, which takes advantage of existing billing systems. The on-bill credit allows PG&E to maximize the amount of revenue returned to customers by minimizing administration and marketing costs. It is simple, and customers do not need to do anything to receive the credit – PG&E runs the calculations, and the rebate is automatically applied through an annual on-bill credit.

**Customer eligibility (2, 3 D.14-12-083)**

LCFS gas revenue is available to customers who consume fuel at PG&E’s publicly-accessible CNG fueling stations. This includes both public customers – which may be residential or non-residential customers – and PG&E’s internal fleet. PG&E only generates LCFS credits for fueling stations that it

owns. Therefore, customers that fuel their vehicles exclusively at non-PG&E-owned stations are not eligible for the rebate, even if they receive CNG from PG&E.<sup>63</sup>

In order to purchase fuel at PG&E's stations, customers must have an existing account with PG&E specific to the use of the CNG fueling stations. To receive a rebate, customers must have an active CNG fueling account at the time the rebate is paid. Vehicle ownership and changes will not need to be identified and addressed since customers will receive a rebate based on the volume of CNG they purchased from PG&E for fueling CNG vehicles, regardless of the vehicles they fueled or who owns them.

### **Distribution of Revenue (4, 5 D.14-12-083)**

PG&E provides a rebate in the form of an on-bill credit to customers who fuel at PG&E CNG stations. To calculate the amount of revenue to be distributed to each recipient, PG&E takes the total amount of gas revenue determined to be distributed for a given Rebate Period and divides it pro rata among each eligible recipient based on each customer's total CNG fuel consumption during the Rebate Period. Except for the first rebate in 2017, the Rebate Period has spanned one calendar year and the rebate has been run the following calendar year.<sup>64</sup> PG&E distributes rebates by means of an annual rebate on the customer's bill. PG&E reserves the option to return revenue by any means approved by the Commission.

### **Program Administration**

PG&E is responsible for calculating each customer's rebate amount based on their share of CNG consumption over the Rebate Period and ensuring that the rebates are posted to each customer's PG&E bill. The program staff also coordinates with the PG&E Natural Gas Vehicles team to gather data and handle any customer inquiries.

### **ME&O**

PG&E conducts targeted, one-to-one outreach to rebate recipients, designed to explain the purpose of the program and to provide information about the on-bill credit and the rebate amount calculation. This occurs in two forms: each customer receiving an on-bill credit receives a mailed letter or email alerting them that the credit is coming soon, and customers that earn more than \$5,000 in credit also receive a direct call or email from their Business Energy Solutions representative.

Because customers have an existing relationship with PG&E through their CNG fueling station account, PG&E does not need to conduct outreach activities to identify eligible customers. PG&E believes that relatively low-cost marketing approaches are appropriate for this program given the established relationships with customers and the fact that funds spent on marketing directly reduce the amount of revenue available to distribute to recipients.

### **Budget**

PG&E files an estimate of the amount of gas revenue to be returned (total gas credit proceeds for the prior calendar year, minus administration costs for the prior year) in its Annual LCFS Forecast Advice Letters.

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<sup>63</sup> PG&E has five CNG rates that customers can choose from. Only customers on the G-NGV2 rate, which is for fueling at PG&E-owned stations, are eligible for the credit.

<sup>64</sup> The 2017 rebate spanned consumption from 2011 through 2016, as PG&E did not have a program in place to return revenue to customers until 2016.

In 2021, PG&E will return gas revenue generated in 2020. Administration includes program management (compliance, reporting), IT system work (to update the system that is used to provide on-bill credits), and PG&E credit sales through the first half of the year.

**Table 22: Estimated Budget for 2021 Renewable Natural Gas Fuel Credit**

Budget in Millions	2021
Rebates	
Program Administration	
ME&O	
<b>TOTAL</b>	

The fuel credit is typically provided to customers in Q3 or Q4 of the year following the Rebate Period.

PG&E does not propose an end date to this pilot and will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report. Any different or additional pilots for the use of gas credit revenue will be proposed in a Tier 2 advice letter.

#### **IV. CONCLUSION**

Pursuant to OP 3 of Decision 20-12-027, PG&E hereby submits this LCFS Implementation Plan detailing five program proposals for the LCFS electric credit revenue return to customers and one program proposal for the natural gas revenue return to customers. Any future program proposals will be made via a Tier 2 AL updating the LCFS Implementation Plan.

##### **A. Summary of Compliance Requirements for Revenue Return to Electric Customers**

For ease of reference, the following three tables detail the requirements for the LCFS revenue return to electric customers and the specific page numbers in the Implementation Plan demonstrating compliance.

**Table 23: General Information Questions per D.14-12-083**

Questions		General	Holdback Program				Non-Holdback Program
		Implementation Plan	Pre-Owned EV Rebate	MUD/Small Business Direct Install	Residential Charging Solutions	Resilient Charging	Research and Innovation Fund
		Page	Page	Page	Page	Page	Page
1	How will the large electrical corporation calculate the number of LCFS credits generated by each customer?	6	N/A	N/A	N/A	N/A	N/A
2	Who receives the revenue from the sale of LCFS credits?	11,12	26	33	44	51	56
3	How are LCFS revenue recipients identified?	N/A	26	33	44	51	56,57
4	How will the large electrical corporation calculate the amount of revenue to be distributed to each customer, if appropriate?	N/A	26,27,30	33,34,37	44,45,48	51,52,55	57
5	By what means is the revenue distributed to the customer and how frequently is revenue distributed?	N/A	26,27	33,34	44,45	51,52	57
6	How will vehicle ownership changes be identified, addressed, and tracked?	N/A	26	N/A	N/A	N/A	N/A
7	How will the large electrical corporation track and true-up revenues and disbursements from the program?	8	N/A	N/A	N/A	N/A	N/A
8	How will the program be marketed in a competitively neutral manner so that plug-in EV owners, regardless of their load serving entity, are aware that they are eligible to receive LCFS revenue?	14,15	28	35	46	53,54	N/A
9	How will the large electrical corporation receive and distribute credits generated by non-residential customers?	6,14	N/A	N/A	N/A	N/A	55

**Table 24: Implementation Plan Compliance Questions per D.12-20-027 Section 3.11**

Questions		General	Holdback Program				Non-Holdback Program
		Implementation Plan	Pre-Owned EV Rebate	MUD/Small Business Direct Install	Residential Charging Solutions	Resilient Charging	Research and Innovation Fund
		Page	Page	Page	Page	Page	Page
1	How are its LCFS holdback expenditures dedicated to equity projects or resiliency projects in the years considered by the Implementation Plan?	N/A	26	34,35	42,44	49,51	N/A
2	How do each of its LCFS holdback expenditures and planned investments benefit current or future EV drivers in the state?	N/A	23	31,32	41,42	49,50	N/A
3	How do its LCFS holdback expenditures comply with all other CARB regulations regarding the use of LCFS holdback funds?	20	20,26	20,34	20,41,42	20,49,50	N/A
4	How does any proposal for its LCFS holdback expenditure:						
4a	<u>Demonstrate input</u> from environmental justice groups and/or community-based organizations?	22	25	34,35	43,44	51	N/A
4b	<u>Address gaps in program design</u> not already addressed through a large electrical corporation's TE expenditures or other publicly funded program, or in the alternative how the proposed expenditure will reduce costs to ratepayers?	N/A	24,25	33,34	42,43	50	N/A
4c	<u>Address a barrier to TE</u> , equity, and/or resiliency?	N/A	23	31,32	41,42	49,50	N/A
4d	<u>Include data collection requirements</u> that allow for an evaluation of the effectiveness of the proposal in addressing TE, equity, and/or resiliency barriers?	16	29	38,39	47	54	N/A

5	How will any proposal for an equity project be for the primary benefit of or primarily serve communities eligible for equity project expenditures?	N/A	26	35	N/A	51	N/A
6	How is any proposal for a resiliency project aligned with other TE-related utility resiliency efforts, including but not limited to Public Safety Power Shutoffs (PSPS) and Wildfire Mitigation Plans, and reflects consultation with EV service providers where appropriate?	N/A	N/A	N/A	N/A	50	N/A
7	How does any proposal for a resiliency project align with Commission policy on vehicle-grid integration (VGI)?	N/A	N/A	N/A	N/A	50	N/A

Table 25: Specific Project Compliance Questions per D.12-20-027 Section 3.11

Questions	General	Holdback Program				Non-Holdback Program
	Implementation Plan	Pre-Owned EV Rebate	MUD/Small Business Direct Install	Residential Charging Solutions	Resilient Charging	Research and Innovation Fund
	Page	Page	Page	Page	Page	Page
<b>For additional rebates or incentives for low-income individuals</b>						
How are the proposal's aims not already address in existing programs?	N/A	24,25	N/A	42,43	N/A	N/A
What TE barrier does the proposal address?	N/A	23,24	N/A	41,42	N/A	N/A
<b>For investment in public EV charging infrastructure and EV charging infrastructure in multi-family residences</b>						
How does the proposal address gaps or barriers not addressed by current programs or how does it reduce cost of ongoing programs to ratepayers?	N/A	N/A	33,34	N/A	N/A	N/A

Advice 6226-E-A  
October 6, 2021

## **Attachment 2**

### **Redline of Changes in 2021 Low Carbon Fuel Standard Implementation Plan**

**CONFIDENTIAL**

Contains Market Sensitive Information Protected Under  
Public Utilities Code Section 454.5(g), Government Code  
Section 6254(k), and Decisions 06-06-066 and 08-04-023

# **ATTACHMENT 1**

## **2021 Low Carbon Fuel Standard Implementation Plan**

**CONFIDENTIAL: Contains Market Sensitive Information Protected Under Public  
Utilities Code Section 454.5(g), Government Code Section 6254(k), and Decisions  
06-06-066 and 08-04-023**

June 15, 2021

# 2021 LCFS IMPLEMENTATION PLAN

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**EXECUTIVE SUMMARY**

Pursuant to Ordering Paragraph (OP) 3 of Decision (D.) 20-12-027 (LCFS Holdback Decision), Pacific Gas and Electric Company (PG&E) hereby submits its Low Carbon Fuel Standard (LCFS) Implementation Plan.

**A. Background**

PG&E generates credits in the LCFS program for supplying low-carbon transportation fuels, including electricity and compressed natural gas (CNG). The revenue from the sales of these credits must be returned to PG&E customers, subject to requirements on the use of LCFS proceeds from the California Air Resources Board (CARB) and California Public Utilities Commission (CPUC). The LCFS proceeds represent a unique opportunity to support transportation electrification and other low-carbon fuels without using ratepayer funding, and PG&E’s proposed programs are designed to fill gaps in the market while meeting both CARB and CPUC requirements.

**B. Electric Revenue Program Portfolio**

PG&E is proposing five electric LCFS programs. Four of these are “holdback programs,” funded by the 33% of remaining residential base credit proceeds after funding the California Clean Fuel Reward (CCFR) program, plus credits generated by forklift charging. These programs must support an increasing focus on equity communities as well as a provide support, up to a cap, for resiliency efforts. PG&E’s four holdback programs for this initial implementation plan are shown in Table 1.

**Table 1: Summary of PG&E Electric Holdback Programs**

Program	Description	Program Duration	Total Cost
Pre-Owned Electric Vehicle (EV) Rebate	Provide a post-purchase rebate for pre-owned EVs, with a \$1000 base rebate and additional \$3000 for income-qualified customers	2022-2024	\$86.55M
Multi-Unit Dwelling (MUD)/Small Business Direct Install	Install low-power chargers (Level 1 and Level 2) at small MUDs and small businesses that have excess capacity on panel	2022-2024	\$25.23M
Residential Charging Solutions	Educational resources and financial support to install EV charging at homes	2022-2024	\$7.26M
Resilient Charging	Third-party software to communicate with customers and actively manage EV charging for the customer prior to a Public Safety Power Shutoff event to ensure they have enough charge in case of emergency	2022	\$4.76M

One program, shown in Table 2, is funded by non-residential credit revenues. These are proceeds from PG&E-owned charging stations at its offices and in the EV Charge Network (EVCN) program. This program does not need to meet the same equity and resiliency requirements that holdback programs must meet.

**Table 2: Summary of PG&E Electric Non-Residential Credit Revenue Programs**

Program	Description	Program Duration	Annual Cost
Research and Innovation Fund	Fund small proof-of-concept pilots and research studies	2022+	\$0.16M/year

**C. Gas Revenue Program**

PG&E plans to continue its CNG revenue return program, which was described in PG&E’s 2015 LCFS implementation plan. This program is funded from the proceeds of credits generated by fleet and residential customers fueling vehicles at PG&E-owned CNG stations. As part of a pilot started in late 2019, all PG&E CNG stations are being supplied with 100% renewable natural gas (RNG). Table 3 shows a summary of PG&E’s gas revenue return program.

**Table 3: Summary of PG&E Gas Revenue Programs**

Program	Description	Program Duration	Total Cost
RNG Fuel Credit	Annual on-bill credits that divide the annual LCFS revenue between customers based on their pro-rata share of CNG usage.	2017+	██████████ (2021)

## I. LCFS CREDIT GENERATION, SALES, ACCOUNTING, AND FORECASTING

This section discusses PG&E's requirements and processes related to the CARB LCFS program. PG&E generates credits from several electric and gas sources, sells those credits, holds the proceeds within designated balancing accounts, and then returns the revenue to customers. Each of these is described in more detail below.

### A. Credit Generation

PG&E has voluntarily opted-in to the LCFS program on behalf of its customers who use transportation fuels with carbon intensities below CARB's targets.<sup>1</sup> Under the current LCFS regulation, PG&E receives LCFS credits from CARB based on those customers' usage of low carbon fuels. PG&E generates credits from the use of electricity and CNG as a transportation fuel as described in more detail in the following sections.

#### 1. Electric Credits

As an electric distribution utility in California, PG&E has been receiving LCFS credits since 2011 for customers who charge their EVs in its service territory. Currently, PG&E generates electric credits from several different sources of EV charging that occurs within the service territory:

- Residential EV charging – including separately-metered EV charging and estimated residential EV charging
- Non-residential EV charging – including PG&E workplace EV charging and EV charging at certain sites in EVCN
- Electric forklift charging
- “Non-opt-in” Utilities’ estimated residential EV charging

CARB calculates the number of LCFS credits generated for a given quantity of electricity consumed as a transportation fuel and deposits those credits into PG&E's LCFS account. On a quarterly basis, PG&E submits EV energy consumption information to CARB for the purpose of calculating and generating LCFS credits. For residential EV charging, PG&E submits actual EV energy consumption for separately-metered EV charging in PG&E's service territory, based on actual metered data from customers on an active separately-metered EV rate.<sup>2</sup>

In addition to the credits generated through residential EV charging, PG&E also generates electric credits through the non-residential metered charging. This includes PG&E workplace EV charging that occurs on EV charging equipment that PG&E owns for its fleet vehicles, employee charging, as well as EV charging at chargers that PG&E owns in the EVCN Program (“Charge Sponsor sites”). On a quarterly basis, PG&E submits actual EV energy consumption for non-residential metered EV charging in PG&E's service area, based on metered data for the chargers.

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<sup>1</sup> 17 CCR § 95480 et seq.; D.14-12-083, p.6.

<sup>2</sup> Currently, the active separately-metered EV rate is EV-B.

PG&E has also received credits for the estimated electric forklift charging that occurs in its service territory and credits for estimated residential EV charging in service territories of “non-opt-in” utilities to the LCFS program.<sup>3</sup> Both are calculated by CARB and deposited into PG&E’s account.

A forecast of PG&E’s electric credit generation can be found in the annual LCFS Forecast Advice Letter, most recently submitted in September 2020.

## **2. Gas Credits**

From 2011-2019, PG&E generated gas credits for CNG fuel sold to the public and used by PG&E’s own fleet at PG&E’s CNG stations. PG&E submitted CNG fuel consumption information to CARB quarterly for the purposes of generating gas credits.

In December 2019, PG&E contracted with a RNG vendor to supply RNG to PG&E’s CNG stations for three years. Under the contract, the vendor supplies RNG to the stations, handles the reporting of RNG consumption to CARB for LCFS credits, sells the credits, and shares the revenue with PG&E.

A forecast of PG&E’s RNG credit generation can be found in the annual LCFS Forecast Advice Letter, most recently submitted in September 2020.

## **B. Credit Sales Procedures**

The Commission authorized electric and natural gas utilities that voluntarily participate in the LCFS regulation to sell LCFS credits according to the parameters and restrictions set forth in D.14-05-021, beginning upon the Commission’s approval of Advice Letter 3575-G/4604-E on August 7, 2015.<sup>4</sup>

PG&E provides the following information regarding its plans for the sale of LCFS credits pursuant to Items 1 through 3 of Appendix A: Tier 2 Advice Letter Filing Requirements in D.14-12-083, as well as information requested in the discussion sections of D.14-12-083.

### **1. Limits and Timing of LCFS Credit Sales**

The CPUC has established two restrictions for the sales of LCFS credits per D.14-05-021. First, the Utility may sell no more than the credits that have been provided by CARB. Second, the credits may only be sold through competitive solicitations or bilateral transactions presented by a broker. PG&E proposed and the CPUC approved the following additional limits in Advice Letter 3575-G/4604-E:

- The Utility will sell credits over time at market prices to avoid trying to time the market;
- The Utility will sell credits at market prices and these transactions will be deemed per se reasonable;
- The Utility will only consider brokers registered with the Commodity Futures Trading Commission; and

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<sup>3</sup> Non-opt-in credits are credits associated with EV residential charging in areas served by utilities not participating in the LCFS program. CARB estimates the total credits and deposits a percentage to each IOU. IOUs are tasked with monetizing these credits and transferring the revenue to the statewide point-of-purchase program, the California Clean Fuel Reward (CCFR).

<sup>4</sup> D.14-05-021, Ordering Paragraph 1; Implementation Plan for the Sale of Low Carbon Fuel Standard Credits and Return of Revenue, pursuant to OPs 2 and 3 of D.14-12-083 and OPs 2 and 3 of D.14-05-021.

- The Utility will follow its standard credit and collateral processes.

**2. Compliance with the California Clean Fuel Reward Governance Agreement Requirements**

In 2018, CARB approved amendments to the LCFS regulation, effective January 4, 2019, which created the framework for the statewide point-of-purchase program, the California Clean Fuel Reward (CCFR), and requires large Investor Owned Utilities (IOUs) to contribute 67% of residential credits to the program.<sup>5</sup> PG&E opted into the CCFR with the signing of the CCFR Governance Agreement in February 2020.<sup>6</sup>

PG&E implemented changes to its credit revenue tracking in preparation for the launch of the statewide program in November 2020. Upon program launch, PG&E contributed 67% of the revenue generated from the sale of electric credits generated from residential EV charging to the program and continues to make quarterly payments to the program in compliance with CARB’s LCFS regulation. PG&E is also required to contribute 100% of the credits and revenue from the non-opt-in utilities to the program. The remaining 33% of residential credits, referred to as “holdback credits,” will serve as one of the funding sources for four of the LCFS revenue return programs discussed in later sections. PG&E tracks the revenue amount for each category by applying a percentage split to the revenue generated from each credit sale transaction. A summary of PG&E’s electric credit generation and CCFR contribution requirement is shown in Table 4.

**Table 4: Electric Credit Generation**

Fuel Type	Credit Source	Percentage of Credit Revenues Sent to the CCFR
Electricity	Separately-metered residential EV fueling	67%
Electricity	Estimated residential EV fueling	67%
Electricity	“Non-opt-in” estimated residential EV fueling	100%
Electricity	PG&E workplace EV fueling	0%
Electricity	EVCN Charge Sponsor sites EV fueling	0%
Electricity	Electric Forklifts	0%

**C. Balancing Accounts**

The CPUC authorized electric and natural gas utilities selling LCFS credits to establish balancing accounts to track LCFS credit revenue<sup>7</sup> and approved PG&E’s proposal to create electric and natural gas LCFS revenues subaccounts in its existing Greenhouse Gas Revenue Balancing Account (GHGRBA) and Gas Programs Balancing Account (GPBA), respectively.<sup>8</sup> The purpose of these subaccounts is to track and record the proceeds from the sale of consigned LCFS credits, any approved program costs, and the LCFS revenues returned to customers.

<sup>5</sup> 17 CCR § 95483 (c)(1)(A).

<sup>6</sup> PG&E Advice Letter 5526-E - [https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC\\_5526-E.pdf](https://www.pge.com/tariffs/assets/pdf/adviceletter/ELEC_5526-E.pdf)

<sup>7</sup> D.14-05-021, Ordering Paragraph 7.

<sup>8</sup> Implementation Plan for the Sale of Low Carbon Fuel Standard Credits and Return of Revenue, pursuant to OPs 2 and 3 of D.14-12-083 and OPs 2 and 3 of D.14-05-021.

Each LCFS Holdback and Non-Holdback Program will have separate order numbers within the GHGRBA account to track program spend. Specific costs for each program (e.g. administration, incentive payments) will also be recorded separately to track contribution toward compliance requirements.

## **D. Revenue Return Forecast**

Per Ordering Paragraph 5 of D.14-12-083, PG&E submits annual Advice Letters providing a forecast of LCFS revenue return program activities for the following year for approval by the Commission (Annual LCFS Forecast Advice Letter). In September 2020, PG&E submitted its forecast of revenue return for PG&E's existing LCFS programs for calendar year 2021. This was prior to recent regulatory changes regarding the use of the LCFS revenue and therefore the revenue return may be different than what was forecasted in order to comply with the recent regulatory requirements. PG&E will continue to report historical LCFS program spend to the CPUC in the Annual Report submitted in April of each year. PG&E will submit its forecast for calendar year 2022, which will include the forecast for the new programs proposed here once approved, in September 2021.

For the most updated forecast of revenue return for PG&E's LCFS programs, please refer to the Annual LCFS Forecast Advice Letter, most recently submitted in September 2020.

## **II. REVENUE RETURN TO ELECTRIC CUSTOMERS**

PG&E provides the following information regarding its plans for the return of revenue to eligible electric customers pursuant to Item 6.a through 6.i of Appendix A: Tier 2 Advice Letter Filing Requirements in D.14-12-083, the information requested in the discussion sections of D.14-12-083, as well as the information required in D. 20-12-027.

### **A. Summary of Changes to PG&E's 2015 LCFS Implementation Plan**

#### **1. Sunset of PG&E's Clean Fuel Rebate Program**

PG&E's 2015 Implementation Plan proposed to return revenue from residential electric credits through a one-time rebate to qualifying residential electric customers based on ownership of a qualifying EV. With CPUC approval, PG&E administered the Clean Fuel Rebate Program from 2017 through 2020, issuing rebates to customers with qualifying EVs and proof of valid vehicle registration. There was a limit of one rebate per vehicle identification number during the program. Over the duration of the program, PG&E issued over 154,000 rebates and returned a total of \$100 million to customers.

PG&E's Clean Fuel Rebate program closed to new applications on December 31, 2020. With the launch of the statewide CCFR program in November 2020, PG&E's program to support new EV purchases is no longer necessary. In line with CARB and CPUC guidance<sup>9</sup> PG&E is proposing new LCFS programs to replace the Clean Fuel Rebate program in this Implementation Plan.

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<sup>9</sup> D.20-12-027 pp. 26

## 2. New CARB and CPUC Revenue Return Requirements

In addition to amendments to create the statewide CCFR, CARB approved amendments to the LCFS regulation in 2019, effective July 1, 2020,<sup>10</sup> which established restrictions on the use of revenue from the sale of holdback credits, including:

- An increasing annual percentage of holdback credit proceeds<sup>11</sup> required to be used to support specifically defined equity customers and communities<sup>12</sup>
- A specified list of projects that may contribute toward the equity proceed requirements<sup>13</sup>
- A cap on the administrative costs to support the development and implementation of equity projects not to exceed 10 percent of total spending on equity projects.

The LCFS Holdback Decision that requires the development of this Implementation Plan, also established additional requirements for the holdback credit revenue including, most notably:

- An increasing annual percentage of holdback credit expenditures<sup>14</sup> required to be used to support specifically defined equity customers and communities<sup>15</sup>
- A set annual maximum percentage of holdback credit proceeds to be spent on specifically defined resiliency projects
- The pooling of forklift credit revenue with holdback credit revenue
- Additional informational and operational questions about the LCFS programs to be answered in the Implementation Plan

The annual holdback credit revenue percentage requirements for CARB and CPUC are summarized in the table below:

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<sup>10</sup> 17 CCR § 95483 (c)(1)(A)(6), pp 34.

<sup>11</sup> For the purposes of this Implementation Plan, credit proceeds are defined as the revenue generated from the sale of any holdback credits in that calendar year

<sup>12</sup> 17 CCR § 95483 (c)(1)(A)(6)(a), pp 35, states that “Effective January 1, 2022, at least 30 percent in year one, 40 percent in year two, and 50 percent in subsequent years of holdback credit proceeds must be used to support transportation electrification for the primary benefit of or primarily serving disadvantaged communities and/or low-income communities and/or rural areas or low-income individuals eligible under California Alternative Rates for Energy (CARE) or Family Electric Rate Assistance Program (FERA) or the definition of low-income in Health and Safety code section 50093 or the definition of low-income established by a POU’s governing body.”

<sup>13</sup> 17 CCR § 95483 (c)(1)(A)(6)(a), pp 35, provides descriptions of six possible equity projects, such as “investment in public EV charging infrastructure and EV charging infrastructure in multi-family residences,” “multilingual marketing, education, and outreach,” or “additional rebates and incentives for low-income individuals beyond existing local, federal and State rebates and incentives.” Projects can be developed with local environmental justice advocates, community-based organizations, and local municipalities that are not on the specified list but require approval by CARB’s Executive Officer.

<sup>14</sup> For the purposes of this Implementation Plan, expenditures are defined as any holdback credit revenue that is spent as part of a holdback program in the calendar year

<sup>15</sup> In addition to the equity communities defined as part of CARB’s LCFS regulation, D.20-12-027 includes “a community with median household income less than 80% of the statewide average, a community in which at least 75% of public schools students in the project area are eligible to receive free or reduced-price meals under the National School Lunch Program, and a community located on lands belonging to a federally recognized CA Indian tribe” as eligible for LCFS holdback expenditure on equity projects (pp. 12-13).

**Table 5: Holdback Credit Revenue Requirements**

Requirement	2021	2022	2023	2024	2025
CARB Equity % (based on proceeds)	N/A	30%	40%	50%	50%
CPUC Equity % (based on expenditure)	35%	45%	55%	75%	75%
CPUC Resiliency % (based on proceeds)	<20%	<20%	<20%	<20%	<20%

Per D.20-12-027, PG&E must develop and propose programs for the use of the LCFS holdback credit revenue to comply with the annual requirements in both CARB's LCFS regulation as well as the requirements in that decision. In this 2021 LCFS Implementation Plan, PG&E proposes programs to comply with the 2022 annual requirements and will develop and propose additional programs in the future to comply with future annual requirements.

## **B. Electric Revenue Program Portfolio Strategy**

PG&E's LCFS electric credit revenues offer a unique opportunity to develop and quickly implement programs to address barriers to EV adoption across all vehicle and customer segments in support of California's ambitious and broad goals related to zero-emission vehicles in a manner that does not require additional utility ratepayer funding.<sup>16</sup> PG&E has developed a holistic strategy for the use of LCFS revenue, to be complimentary with the Utility's existing and planned transportation electrification (TE) efforts including, but not limited to, customer TE infrastructure and non-infrastructure program and pilot offerings; EV-specific rates; marketing, education, and outreach; stakeholder engagement; and the Transportation Electrification Framework (TEF). Per the requirements in Section 3.11 of D. 20-12-027, PG&E has developed guiding principles and a program development process to account for and be complimentary to the Utility's TE portfolio. The following subsections describe the general LCFS program development process and the overarching structure of PG&E's LCFS Electric Revenue Program Portfolio.

### **1. Guiding Principles**

All customer segments continue to face the well-known barriers to EV adoption: lack of access to charging infrastructure, availability and affordability of suitable vehicles, and insufficient education and awareness. LCFS offers a unique opportunity to use the revenue generated by users of clean transportation fuel to continue to address those barriers in innovative and strategic ways, especially as the market continues to change. PG&E intends to use the LCFS revenue to fund programs and pilots that are shorter in duration (five years or fewer). This approach allows PG&E to focus on generating lessons learned that can be quickly leveraged for larger-scale programs and to refine future pilot proposals.

PG&E's overarching goal is that LCFS-funded program design is nimble and flexible, enabling PG&E to quickly incorporate lessons learned into existing and future programs, and pivot to address emerging EV

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<sup>16</sup> Governor Newsom's Executive Order N-79-20 – <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>

market needs. Under this overarching goal, PG&E has developed four principles that guide program design and evaluation:

- Maximize Benefits to Utility Customers
- Support EV Awareness & Adoption
- Advance the State’s Equity, Resiliency, and Climate Goals
- Efficiently Use Funding

Together, these guiding principles ensure programs are supporting customers, advancing transportation electrification, and fulfilling the intent and requirements of CARB and CPUC regulations for the use of the revenue. Some examples of how the principles support specific decision requirements are shown in the table below:

**Table 6: Guiding Principles for LCFS Program**

Guiding Principles	Provide flexibility, incorporate lessons learned and pivot to address EV Market Needs			
	Maximize Benefits to Utility Customers	Support EV Awareness & Adoption	Advance State’s Equity, Resiliency and Climate Goals	Efficiently Use Funding
Program Criteria from LCFS Decision 20-12-027	Benefit only current and future EV drivers (3.11)	Address barrier to TE/equity/resiliency (3.11)	Demonstrate input from Environmental Justice (EJ) and Community Based Organizations (CBOs) (3.11)	Collect data to evaluate program effectiveness (3.11)
	Address gaps in utility program offerings (3.11)	Coordination with IOUs on second-hand vehicle rebate program (3.11)	Demonstrate how equity projects will benefit equity communities (3.11)	Demonstrate cost-effectiveness for battery swap program (3.11)
	Demonstrate coordination with local entities for resiliency projects (3.10)		Demonstrate how expenditure supports resiliency (3.11)	Align resiliency projects with other resiliency/Vehicle Grid Integration (VGI) efforts (3.10)

*Note: The specific section in D.20-12-027 where the criteria can be found is included in parentheses*

PG&E will use these guiding principles in the prioritization and design of programs that effectively support EV adoption and address market needs. PG&E will also use the principles to develop a portfolio of programs that is diverse in the barriers it addresses, and the customer segments it serves.

**2. Program Development Process**

PG&E has created a framework for ongoing LCFS program development that incorporates internal and external stakeholder feedback at various stages of the process. Stakeholder engagement is critical to understanding the needs of the customers to be served by the programs, especially those in equity

communities. PG&E utilized the following process in the development of the program proposals in this Implementation Plan:

- **Ideation:** PG&E works with internal and external stakeholders to identify additional barriers to TE, perform gap analyses, and solicit program ideas to address specific market and customer needs. This involves engagement with community-based organizations (CBOs), environmental justice (EJ) groups, market vendors, state agencies, local entities, utilities, and others.
- **Prioritization:** PG&E's Clean Energy Transportation (CET) team develops program sketches and presents them to a diverse internal Steering Committee, with members from the Clean Energy Transportation, Grid Planning, Customer Resiliency, Vehicle Grid Integration (VGI), and Income Qualified and Disadvantaged Community Programs teams, to assess program sketches based on guiding principles and evaluation criteria and prioritize programs for development.
- **Development:** PG&E's CET team develops full program proposals, designing the goals, scope, and budget with input from key internal and external stakeholders, including similar external stakeholders as identified in the ideation stage.
- **Finalization and Filing:** Final program design is refined with continued stakeholder input and finalized with PG&E executive approval. PG&E's CET and Regulatory Affairs teams develop the Tier 2 Advice Letter for filing of new program proposals to update the Implementation Plan.

PG&E will continue to leverage this process for future program proposals.

### 3. Portfolio Structure

PG&E's LCFS Electric Program Portfolio will consist of LCFS overhead operations, pilots and programs, and Marketing, Education, and Outreach (ME&O) coordinated with the Utility's overall TE ME&O. Each of these elements are described in more detail in the sections below.

#### Overhead Operations

The Utility must maintain ongoing business operations, like program management and credit reporting and sales, to generate revenue from LCFS credits. A brief description of each type of overhead cost is provided:

- **Program Management:** Personnel to manage PG&E's LCFS program participation, including LCFS reporting to CARB for credit generation, LCFS reporting to CPUC for forecasted and historical revenue and expenditures, development of CPUC LCFS Implementation Plan, support for the statewide California Clean Fuel Reward, and LCFS regulatory coordination.
- **Credit Sales:** Personnel to implement PG&E's sale of Electric Credits.

PG&E must maintain these essential functions to generate LCFS revenue to return to customers via the CCFR and approved programs. Therefore, PG&E will track and report these activities separate from any specific program administrative cost. More detail on cost of overhead operations is included in the Annual LCFS Forecast Advice Letter and annual revenue report.

#### Programs

LCFS revenue is an important tool to support the State's ambitious goals and benefit customers in concert with the Utility's ratepayer TE programs and activities. As a result, the LCFS programs are designed to be closely aligned with the utility's overarching TE strategy to support all customer segments as will be

described in the upcoming Transportation Electrification Plans (TEPs) to be developed and filed once final guidance is provided by the CPUC in an adopted TEF.

The programs will fall into one of two categories depending on the source of credit revenue used to fund the program:

- **Holdback Programs** – funded with holdback credit revenue and electric forklift credit revenue. These are subject to the revenue requirements listed in Table 2 and other specific holdback program requirements listed in D.20-12-027 and in CARB’s LCFS regulation.
- **Non-Holdback Utility Programs** – funded with revenue from non-residential EV charging credits including PG&E workplaces, PG&E-owned chargers in EVCN, and other credit sources that may be generated in the future. These are subject to the LCFS revenue requirements in CARB’s LCFS regulation.

The programs may be of varying lengths and the Utility will continue to propose new programs for the portfolio, via a Tier 2 advice letter, to address emerging customer needs and meet the LCFS Holdback Decision requirements.

### **Marketing Education & Outreach**

Per Section 3.15 of the LCFS Holdback Decision, the utilities are to describe how their LCFS-related ME&O efforts are leveraged across their TE portfolios and demonstrate that there are no duplicative efforts. As described in each program proposal in the section below, PG&E will utilize a variety of ME&O approaches in order to effectively reach the customers each program aims to serve. Each program will include:

- A general ME&O plan, targeted towards all eligible PG&E electric customers, and
- An equity-focused ME&O plan, targeted towards specific underreached and/or hard-to-serve-equity customers eligible for the program.

The ME&O strategies may be executed by the Utility, the third-party program implementer, a CBO, or a combination of all three.

#### *General ME&O*

PG&E takes a customer-first approach to outreach and starts with understanding the key phases of the customer journey – vehicle research, dealership visits, vehicle purchase and charging station installation, post-purchase rebates, cost-saving programs, or ongoing EV operations and maintenance. For the residential customer this includes:

- **Explore:** Potential EV customers that are researching vehicle purchase (EVs may or may not be currently considered)
- **Dealership Visits (test drives):** Refining vehicle search for a few brands and driving them to help inform decision.
- **Vehicle Purchase/Charging Station Installation:** Vehicle purchase followed by charging installation.
- **Post-Purchase:** Applying for rebates and/or enrolling in cost savings programs such as an EV rate.

This understanding informs where outreach for each individual program is most relevant to the customer and how best to reach the intended program objective. PG&E, in partnership with third-parties as appropriate, will develop a program-specific general ME&O plan for eligible equity and non-equity customers to reach program goals. This will include outreach to hard-to-reach customers. Plans will employ a variety of tactics including:

- **Newsletter inclusion:** PG&E has ongoing digital outreach to residential and non-residential customers through monthly newsletters and packaged content by industry segment enabling LCFS program promotion opportunities.
- **Email:** Multi-touch email campaigns to engage target audiences on key program details, identify key decision makers, and drive customer acquisition online.
- **Social Media:** Social media will include targeted paid posts to key customer segments helping to promote program participation.
- **Other Messaging:** Integrated messaging with other utility programs, resources and tools.

All ME&O will be in support of a specific LCFS program and will not be used for general EV customer education. Messaging and outreach strategies will be focused to all customers eligible for a particular program, regardless of their load serving entity. More detail on the general ME&O plan for each program is included in Section C below.

#### *Equity-focused ME&O*

PG&E is committed to increasing awareness of and participation in the LCFS programs by equity customers who are not being reached through traditional channels. To that end, in addition to the targeted outreach to the hard-to-reach customers done by the utility and/or implementer, PG&E plans to formally and informally partner with CBOs for thought-partnership on new program design and for conducting outreach and marketing to equity customers and communities about the specific LCFS programs. PG&E plans to utilize a Request For Proposal (RFP) process to contract with a set of CBOs across the service territory to support outreach to equity customers and communities about all of the holdback programs that are applicable to them. The contracts with the CBOs would be at a portfolio level instead of an individual program level and would be coordinated with current outreach to equity customers and CBO partnerships in existing ratepayer EV programs, such as Empower EV, as well as non-EV programs. This CBO partnership strategy must also be coordinated with any statewide efforts to work with CBOs including the CCFR and Access Clean California to further educate hard-to-reach customers and minimize administrative burden to CBOs.

In discussions about the LCFS programs, many CBOs raised the concern that it is ineffective to educate customers about a single program or support only one aspect of the TE journey for customers. Instead, they emphasized the need to be able to educate hard-to-reach customers about all available incentives and provide support for every step of the customer's journey. As a result, contracting with CBOs on an individual programmatic level is inefficient, as it would limit the CBO to supporting only that program and inhibits a holistic approach. Partnering at the portfolio level allows CBOs to market various programs and resources based on the needs of the specific customer and enables customers to receive end-to-end support across the lifecycle of their purchase (e.g., financial support for charging installation, vehicle purchase and help enrolling in the right rate to keep fuel costs low). In addition, a portfolio-level partnership increases the coverage of customers across the service territory. It also streamlines the number

of contracts that the CBO needs to manage for their ME&O efforts for the various LCFS programs, and builds in the opportunity to include outreach for other non-LCFS programs (funded by non-LCFS revenue) in the future. PG&E will continue engaging with all interested CBOs to support program design, implementation and outreach but recognizes the need for formal paid contracts with CBOs to achieve a robust and comprehensive ME&O approach to equity customers for the LCFS portfolio.

The scope and design of PG&E's partnership with CBOs is dependent on the CPUC's approval of the 2021 LCFS Implementation Plan program proposals. Upon approval, PG&E will develop a coordinated approach to selecting the CBOs for partnership and determining specific outreach strategies for each program.

### **Evaluation**

The ability to constantly assess program impacts and adjust approaches based on market realities is a hallmark of how PG&E will implement these programs. To this end, PG&E has included a 2% evaluation budget for each program. This will be used to regularly collect and analyze data to assess each program's performance, barriers, customer pain points, and opportunities. In addition, PG&E will be strategic with this funding based on the specific needs and challenges of each program. For example, PG&E might consider a process evaluation above and beyond what is conducted internally to learn about what program procedures and requirements could be improved, or conduct a study that explores why enrollment among a particular customer segment was poor.

Each pilot program described below includes a short discussion on the types of data that will be collected to aid in evaluation efforts. PG&E will determine the specific evaluation needs of each program once the programs have been launched and the program team can observe opportunities for study.

### **4. Portfolio Budget**

The LCFS portfolio budget will consist of the annual total budget for each program in the portfolio for the number of years that each program is proposed to have expenditures. The portfolio budget is based on PG&E's internal LCFS revenue forecast for the program implementation years. The revenue forecast uses the same methodology for LCFS credit prices and residential and non-residential EV charging assumptions as what is used for PG&E's Annual LCFS Forecast Advice Letter.<sup>17</sup>

The portfolio budget is subject to change based on adjustments to individual program design during the program set-up phase or implementation as explained in the program proposals. Changes to the LCFS market, including the LCFS credit price, may also impact the budget. PG&E will not spend any LCFS revenue that has not already been generated and deposited in the balancing account and therefore the program budgets may need to be adjusted if the forecasted revenue is impacted.

PG&E will continue reporting on the LCFS revenue expenditures from the LCFS portfolio in the Annual LCFS Forecast Advice Letter and the annual LCFS Revenue Report per the reporting obligations established by D.14-05-021, D.14-12-083, and Resolution E-5015. PG&E will also update the portfolio budget in the Implementation Plan any time new programs are proposed and the Plan is updated via a Tier 2 AL.

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<sup>17</sup> Details on the assumptions for the forecast can be found in PG&E's Annual LCFS Forecast AL.

### C. 2021 LCFS Electric Program Portfolio

PG&E provides information regarding its plans for the return of revenue to eligible electric customers pursuant to Item 6.a through 6.i of Appendix A: Tier 2 Advice Letter Filing Requirements in D.14-12-083, the discussion sections of D.14-12-083, as well as the information requested in the discussion sections of D.20-12-027.

#### 1. Overview of Programs

Pursuant to 3.11 of D. 20-12-027, PG&E proposes five LCFS programs – four Holdback Programs and one Non-Holdback Program – to benefit current and future EV drivers. PG&E provides a summary of the program proposals, each of which are detailed in the sections below.

**Table 7: PG&E LCFS Program Proposals**

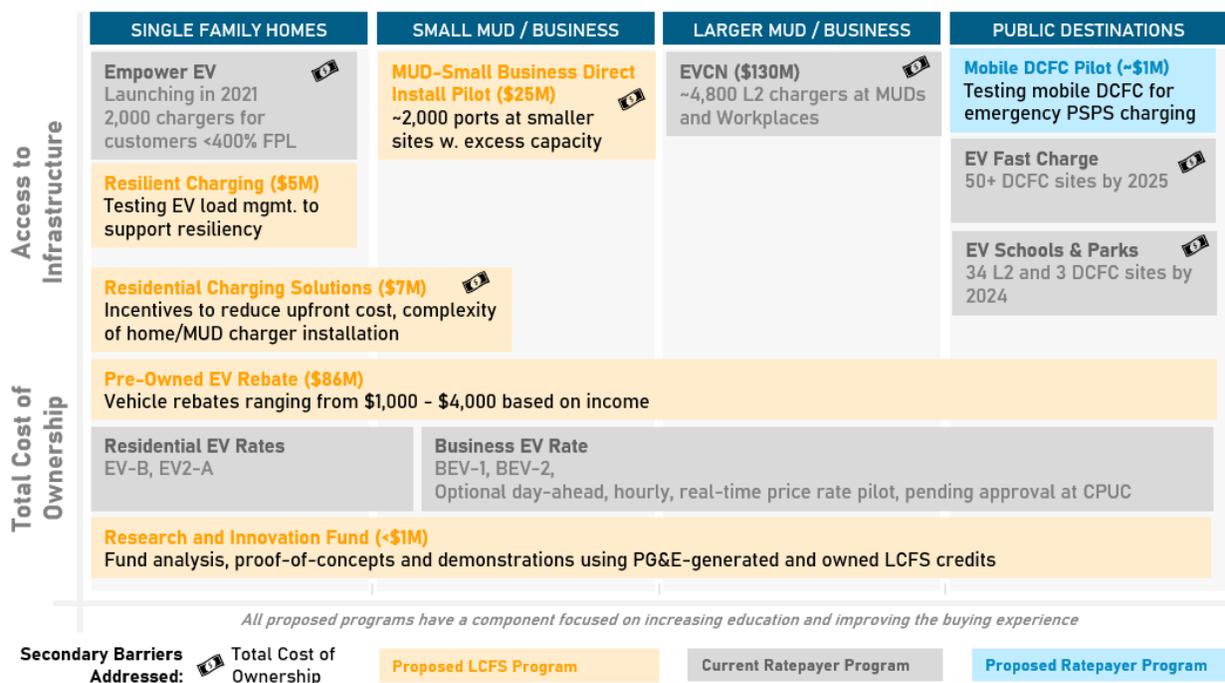
	Program/Pilots	Barrier(s) Addressed	Estimated Program Duration	Estimated Total Budget
Holdback Programs	Pre-Owned EV Rebate Program	Total Cost of Ownership	2022-2024	\$86.55M
	MUD/Small Business Direct Install Pilot	Access to Infrastructure and Education and Awareness	2022-2024	\$25.23M
	Residential Charging Solutions Pilot	Access to Infrastructure, Total Cost of Ownership, and Education and Awareness	2022-2024	\$7.26M
	Resilient Charging Pilot	Access to resilient Infrastructure	2022	\$4.76M
Non-Holdback Program	Research and Innovation Fund Pilot	All via Research and Development	2022+	\$0.16M/year

*Note: program duration timeframe is dependent on CPUC approval of the 2021 LCFS Implementation Plan*

The 2021 proposed Holdback Programs are designed to complement current ratepayer programs and provide a multi-faceted set of solutions to support various aspects of transportation electrification for light-duty vehicles and residential customers. The barriers to TE for residential customers are well known and the proposed programs assist in filling in existing gaps in the Utility program offerings as well as build off and further the impact of existing utility and State programs.

The 2021 proposed Non-Holdback Programs are not subject to the same requirements in the LCFS Holdback Decision as the Holdback Programs but must still be developed and executed in support of EV customers. PG&E plans to use these programs to support early stage research and development in the TE space to enable better, faster, and more innovative solutions for our customers and for the grid.

**Figure 1: PG&E’s Residential/Light-Duty Vehicle Portfolio**



The current proposed portfolio of LCFS programs is focused on supporting light-duty vehicles primarily driven by residential customers to effectively address the gaps in support in existing programs. PG&E plans to propose future LCFS programs to support the medium and heavy-duty vehicle sector and commercial customers more generally. The medium- and heavy-duty vehicle market is more nascent than the light-duty vehicle sector and the transportation needs of commercial customers and barriers to electrifying are more heterogenous. In 2021, PG&E is undertaking extensive research to better understand and address electrification barriers in medium- and heavy-duty vehicle customer segments and will take the time to work closely with stakeholders to design effective programs to support this customer segment in future implementation plans. In addition, PG&E will design programs with an increasing focus on equity and plans to engage with equity stakeholders, including Tribes and Assembly Bill (AB) 617 communities, to specifically address the needs in their communities.

PG&E plans to update the 2021 LCFS Implementation Plan in 2022 to propose a new resiliency program and may include additional program proposals as well. PG&E will propose additional LCFS programs as existing LCFS programs sunset and as customer needs emerge.

**2. Proposed 2021 LCFS Portfolio Budget**

PG&E has developed an approximate budget for the 2021 LCFS Portfolio pursuant section 3.11 in D. 20-12-027. As mentioned previously, any LCFS revenue that has not already been generated and deposited in the balancing account, and therefore the program budgets, may need to be adjusted if the forecasted revenue is impacted.

PG&E has developed these programs and budgets based on market analysis, program design best practices, and stakeholder engagement. However, PG&E is aware that it can only offer these programs to

customers and encourage their participation through effective ME&O – it cannot control customer interest, participation, or other market factors that may influence participation (e.g. economic downturns). Therefore, the budgets of the individual programs may be adjusted within the overall portfolio budget to meet customer demand and market needs.

**Table 8: Estimated 2021 LCFS Portfolio Budget by Pilot (\$M)**

	Program/Pilots	2021	2022	2023	2024	2025	Total
Holdback Programs	Pre-Owned EV Rebate	\$0.15	\$24.44	\$28.34	\$32.68	\$0.94	\$86.55
	MUD/Small Business Direct Install	\$0.05	\$6.42	\$9.01	\$9.06	\$0.69	\$25.23
	Residential Charging Solutions	\$0.05	\$1.75	\$2.68	\$2.68	\$0.09	\$7.26
	Resilient Charging	\$0.10	\$4.48	\$0.17	--	--	\$4.76
<b>Holdback Total</b>		<b>\$0.36</b>	<b>\$37.09</b>	<b>\$40.20</b>	<b>\$44.42</b>	<b>\$1.73</b>	<b>\$123.79</b>
Non-Holdback Program	Research and Innovation Fund	\$0.0	\$0.13	\$0.16	\$0.16	\$0.16	\$0.61
<b>Portfolio Total</b>		<b>\$0.36</b>	<b>\$37.22</b>	<b>\$40.36</b>	<b>\$44.58</b>	<b>\$1.89</b>	<b>\$124.40</b>

*Note: numbers may not add up due to rounding*

**Table 9: Estimated Holdback Program Budgets by Expenditure Category and Compliance Target (\$M)**

Category	2021	2022
Customer Incentives	\$0.00	\$31.33
Program Administration	\$0.32	\$3.32
Program ME&O	\$0.04	\$1.80
Program Evaluation	\$0.00	\$0.64
<b>Total Expenditure</b>	<b>\$0.36</b>	<b>\$37.09</b>
Total Equity Expenditure	\$0.12	\$19.34
CPUC Equity Expenditure Target (%)	35%	45%
PG&E Equity Expenditure to CPUC Target (%)	35%	52%
CARB Equity Proceeds Target (%)		30%
PG&E Equity Expenditure to CARB Target (%)		53%
CPUC Resiliency Expenditure Target (%)		<20%
PG&E Resiliency Expenditure to CPUC Target (%)		15%
CARB Equity Admin Expenditure Target <sup>18</sup>	≤10%	≤10%
PG&E Equity Admin Expenditure to Total Equity Expenditure	N/A <sup>19</sup>	10%

*Note: PG&E has designed the 2021 LCFS Portfolio to meet the 2022 targets and will propose additional programs to ensure compliance with targets of the future years.*

<sup>18</sup> 17 CCR § 95483 (c)(1)(A)(6)(c), pp 36, states “Administrative costs to support the development and implementation of holdback credit equity projects must not exceed 10 percent of total spending on holdback credit equity projects annually unless the EDU contracts with a community-based organization, and the exceedance is approved in advance by the Executive Officer”.

<sup>19</sup> PG&E is working with CARB to determine how to account for administrative costs in support of program set up and launch.

Table 10: Detailed 2021 LCFS Program Budgets (\$M)

Category	2021	2022	2023	2024	2025	Total
<b>Pre-Owned EV Rebate</b>						
Pre-Owned EV Rebate - Base	\$0.00	\$11.03	\$11.18	\$11.19	\$0.00	\$33.39
Pre-Owned EV Rebate - Equity	\$0.00	\$11.03	\$14.90	\$19.18	\$0.00	\$45.11
Implementer Program Admin						
PG&E Administration	\$0.11	\$0.27	\$0.28	\$0.28	\$0.11	\$1.06
General ME&O						
Equity ME&O						
Evaluation	\$0.00	\$0.43	\$0.44	\$0.45	\$0.46	\$1.79
<b>TOTAL</b>	<b>\$0.15</b>	<b>\$24.44</b>	<b>\$28.34</b>	<b>\$32.68</b>	<b>\$0.94</b>	<b>\$86.55</b>
<b>MUD/Small Business Direct Install</b>						
EVSE Installation - Non-equity						
EVSE Installation - Equity						
Implementer Program Admin						
PG&E Administration	\$0.05	\$0.27	\$0.27	\$0.28	\$0.11	\$0.98
General ME&O						
Equity ME&O						
Evaluation	\$0.00	\$0.13	\$0.13	\$0.13	\$0.13	\$0.52
<b>TOTAL</b>	<b>\$0.05</b>	<b>\$6.42</b>	<b>\$9.01</b>	<b>\$9.06</b>	<b>\$0.69</b>	<b>\$25.23</b>
<b>Residential Charging Solutions</b>						
Tech. Solutions Rebate - Non-equity						
Tech. Solutions Rebate - Equity						
PG&E Administration	\$0.05	\$0.15	\$0.15	\$0.15	\$0.06	\$0.56
General ME&O	\$0.00	\$0.27	\$0.02	\$0.02	\$0.00	\$0.30
Equity ME&O						
Evaluation	\$0.00	\$0.04	\$0.04	\$0.04	\$0.04	\$0.15
<b>TOTAL</b>	<b>\$0.05</b>	<b>\$1.75</b>	<b>\$2.68</b>	<b>\$2.68</b>	<b>\$0.09</b>	<b>\$7.26</b>
<b>Resilient Charging</b>						
Incentives + Tech. Testing: Non-equity						
Incentives + Tech. Testing: Equity						
Implementer Program Admin						
PG&E Administration	\$0.10	\$0.21	\$0.11			\$0.42
General ME&O						
Equity ME&O						
Evaluation	\$0.00	\$0.05	\$0.05			\$0.10
<b>TOTAL</b>	<b>\$0.10</b>	<b>\$4.48</b>	<b>\$0.17</b>			<b>\$4.76</b>
<b>Research and Innovation Fund</b>						
Project Funding	\$0.00	\$0.08	\$0.10	\$0.10	\$0.10	\$0.38
PG&E Admin	\$0.00	\$0.05	\$0.05	\$0.06	\$0.06	\$0.22
Evaluation	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.01
<b>TOTAL</b>	<b>\$0.00</b>	<b>\$0.13</b>	<b>\$0.16</b>	<b>\$0.16</b>	<b>\$0.16</b>	<b>\$0.61</b>

All budgets, excluding direct customer incentives, include an escalation of approximately 2% over the years of program implementation.

### **3. Stakeholder Engagement**

Per requirement 4a in Section 3.11 of D.12-20-027 and as described in Section B.2 “Program Development” of this Implementation Plan, PG&E engaged a multitude of internal and external stakeholders in the development of the LCFS programs for the 2021 LCFS Portfolio. Stakeholder engagement is critical to the development of successful and effective programs, particularly for programs serving equity customers. Over the past year, the CET team engaged over thirty different stakeholders through individual and group meetings to identify specific gaps in PG&E’s support for customers, brainstorm potential program solution ideas, and then develop the ideas into the full-scale program proposals included in the Implementation Plan.

The internal PG&E stakeholders engaged include representatives from teams across the company, including Vehicle-Grid Integration (VGI), Demand Response, Low-Income and Disadvantaged Communities Programs, Tribal Communities, Small Business Engagement, Local Public Affairs, and Grid Planning. External stakeholders engaged include Greenlining, GRID Alternatives, Community Housing Development Corporation (CHDC), Valley Clean Air Now (Valley CAN), Self Help Enterprises, Electric Transportation Community, Beneficial State Foundation, Natural Resources Defense Council, Environmental Defense Fund, San Joaquin Valley Clean Energy Organization, Small Business Utility Advocates, Ecology Action, TURN, Cal Advocates, Community Choice Aggregators,<sup>20</sup> City of Berkeley, CARB, Energy Division, members of the Disadvantaged Communities Advisory Group, Bay Area Air Quality Management District (BAAQMD), San Joaquin Valley Air Pollution Control District, Energy Solutions, WeaveGrid, ev.energy, NeoCharge, Tesla, specific multi-unit dwelling property owners, and others. PG&E also met biweekly for the past five months with Southern California Edison and San Diego Gas & Electric to coordinate on general approach to the LCFS Implementation Plan and align on specific program design when possible.

Stakeholders provided invaluable feedback and recommendations for specific aspects of the programs and PG&E adjusted the design, scope, target customers, and ME&O approach, among other things, of the programs in response. Specific feedback from stakeholders on each program and how PG&E incorporated it into the program design is included in each program proposal.

### **4. Holdback Program Proposals**

There are four proposed Holdback Programs funded by PG&E’s holdback credit revenue: Pre-Owned EV Rebate, Multi-Unit Dwelling/Small Business Direct Install, Residential Charging Solutions, and Resilient Charging. Each of these are described in more detail in the subsequent sections.

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<sup>20</sup> PG&E met with representatives from Marin Clean Energy, Sonoma Clean Power, Pioneer Community Energy, East Bay Clean Energy, Redwood Energy, Silicon Valley Clean Energy, Peninsula Clean Energy, Central Coast Community Energy, and San Jose Clean Energy.

**Program #1: Pre-Owned EV Rebate Program**

The Pre-Owned EV Rebate Program is a post-purchase rebate for customers who purchase an eligible pre-owned passenger EV, with an additional rebate for income qualified customers. Pending CPUC approval of the program, PG&E plans to set up the program in Q4 2021 - Q1 2022 and launch the program in Q2 2022.

Pre-Owned EV Rebate Program	
Customer Segment	Residential customers
Program Design	Provide a post-purchase rebate for pre-owned EVs, with a \$1000 base rebate and additional \$3000 for income-qualified customers
Implementation Structure	Third-party implemented – implementer responsible for application processing and issuing rebates
Program Goals	<ul style="list-style-type: none"> <li>• Support near-term EV adoption and second life of EVs</li> <li>• Increase access to EVs for Low-and-Moderate Income (LMI) customers</li> <li>• Provide education and gain insight to factors that affect vehicle purchase</li> </ul>
Timeframe & Launch Date	Three years; Q2 2022 (anticipated)
Total budget	\$86.55 million
Funding source	Residential holdback revenue

**Policy and Market Support***Barriers Addressed*

The pre-owned EV rebate reduces the upfront cost of an EV, primarily addressing the customer barrier of total cost of EV ownership. The purchase price of an EV is still higher than comparable Internal Combustion Engine (ICE) vehicles, which makes them unaffordable to many customers.<sup>21</sup> This is also true for the pre-owned EV market, especially for newer models that have longer driving ranges. Based on a recent survey from Kelley Blue Book, the top five selling used EVs (model years 2017-2018) were an average of \$2,000 more expensive than their ICE counterparts.<sup>22</sup> A rebate can help customers who are “on the fence” decide to purchase an EV, as found in a recent PG&E series of in-depth interviews of customers about the EV journey.<sup>23</sup> Additionally, CBOs noted that LMI customers are more likely to purchase pre-owned vehicles over new vehicles, and a rebate can help lower the total purchasing price of an EV – thus increasing access to clean transportation for customers who have limited budgets.

The current pre-owned EV market is small when compared to the pre-owned ICE market, but continues to grow as more new EVs are manufactured and sold, come off their leases, or customers upgrade current

<sup>21</sup> In June 2019, the average cost of a new EV compared to a new ICE vehicle was \$19,000 more expensive. <https://www.caranddriver.com/research/a31544842/how-much-is-an-electric-car/> (accessed June 3, 2021)

<sup>22</sup> Based on market data from Kelley Blue Book Fair Market Price (buy from dealer, priced without added options), accessed March 2020

<sup>23</sup> PG&E conducted a series of in-depth interviews with 14 customers from March to April about the EV journey to gain insight into consumer consideration of EVs and the vehicle decision-making process, including research sources, incentives, and barriers

vehicles with newer models.<sup>24</sup> This turnover will help expand the available pre-owned options and support customers with a wide range of transportation and financial needs.

### *Program Alignment*

A pre-owned EV rebate fills in a gap in PG&E customer program offerings, furthers the impact of existing pre-owned EV rebate programs, and complements the pre-owned EV rebate programs offered by the other IOUs and the LCFS-funded CCFR that offers a rebate for the purchase of a new EV. Additionally, a pre-owned EV rebate is one of the approved equity programs listed in CARB's LCFS regulation.

PG&E does not currently offer any type of rebate for customers who purchase pre-owned passenger EVs. The Clean Fuel Rebate program, which sunset in December 2020, offered a rebate for the purchase of an EV but it was limited to one rebate per Vehicle Identification Number (VIN). Many customers who purchased a pre-owned EV were therefore ineligible to receive the Clean Fuel Rebate if the prior owner had claimed it. In a recent series of in-depth interviews, customers have expressed interest in a rebate program for pre-owned EVs as they are supporting the transition to clean transportation just as much as new EV buyers.

Offering a pre-owned EV rebate also complements PG&E's existing residential customer programs and education resources, such as Empower EV, EV rates, EVCN, and EV Fast Charge programs. Combined, these offerings can help customers through all steps in their electrification journey, including reducing the upfront vehicle purchase price, enabling home charging installation, and increasing the availability of public charging. The Pre-owned EV Rebate Program also complements the other LCFS program proposals that address additional barriers in the TE journey, including access to infrastructure at multi-unit dwellings, cost of charger installation, and range anxiety concerns during emergencies.

While there are several other local and statewide programs that offer rebates for pre-owned EVs,<sup>25</sup> many of them have vehicle replacement requirements and/or strict income limits. The intent of the simple Pre-owned EV Rebate Program design is to support customers who might not meet other program requirements while also enabling customers to easily stack the rebate with other available incentives, further lowering the cost of a pre-owned EV and increasing access to clean transportation. Eligible PG&E customers would be able to combine the PG&E rebate with other programs, which is particularly important for LMI customers who likely need to access up-front grants or vehicle financing as well as additional after-the-fact rebates to afford a vehicle. PG&E designed the program so that the rebate could be stacked based on feedback from key stakeholders who run equity-focused programs such as CHDC, Valley CAN, Beneficial State Foundation, and BAAQMD.

An LCFS-funded pre-owned EV rebate program is an important complement to the LCFS-funded CCFR incentive for the purchase of a new EV. PG&E customers who cannot afford or do not wish to purchase a new EV are not able to take advantage of the incentive offered in that program and do not have an

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<sup>24</sup> Almost 100 battery electric vehicles are set to debut by 2024 – <https://www.caranddriver.com/news/g29994375/future-electric-cars-trucks/>

<sup>25</sup> For example: Clean Vehicle Assistance Program, Clean Cars 4 All, Driving Clean Assistance Program, Peninsula Clean Energy DriveForward Electric.

alternative incentive program option from PG&E. Offering a pre-owned EV rebate expands the number of customers who are able to benefit from LCFS revenue and supports a more equitable distribution of the revenue. In addition, additional rebates or incentives to low-income individuals for purchasing or leasing new or previously owned EVs is one of eligible equity projects listed in CARB's LCFS regulation.<sup>26</sup>

PG&E's Pre-owned EV Rebate Program will also be complementary to the similar rebate programs proposed by the other IOUs. Pursuant Section 3.11 in D.20-12-027, PG&E has met with Southern California Edison (SCE) and San Diego Gas & Electric (SDG&E) through biweekly meetings over the past four months to coordinate various aspects of the Pre-Owned EV Rebate Program in an effort to ensure a consistent customer experience across the different utility territories. The IOUs recognize the benefit of a standard rebate to encourage broad customer participation and for an additional incentive to target certain qualifying customers and have initially designed their programs to align in rebate amounts, eligibility, and general program design. The IOUs also acknowledge that each utility will have different specific customer needs based on their unique territories and different LCFS positions and strategies, and therefore some differences across the offerings as the programs are implemented are likely. The IOUs expect to continue these coordination meetings as each utility moves toward implementing its pre-owned EV rebate program so that details around vehicle and customer eligibility, as well as outreach efforts, may be aligned where practicable.

### *Stakeholder Feedback*

PG&E met with an extensive and diverse group of external stakeholders over the course of the development of the program. Those stakeholders include EJ advocates, environmental groups, program implementers, and government entities. These conversations were extremely productive and helpful in designing the pilot to be effective and equitable. Overall, stakeholders were supportive of the pilot design and intent and expressed the need for this kind of program to support customers. They also emphasized that the size of the total rebate for income qualified customers would be impactful. Specific examples of stakeholder feedback incorporated into the pilot design include:

- There is a negative connotation associated with the word "used," especially for lower-income customers, so PG&E changed the program name from "Used EV Rebate Pilot" to "Pre-Owned EV Rebate Pilot."
- Stacking this rebate with other incentives is critical to further increase access for LMI customers, so PG&E will keep the rebate eligibility criteria as simple as possible.
- PG&E will implement rigorous program controls to avoid fraudulent applications as seen in other pre-owned EV rebate programs.
- To support more customers and avoid introducing a different income standard for the program that could further complicate the process for LMI customers, PG&E will use Area Median Income (AMI) for the income qualification level for the additional rebate.
- PG&E will also use "categorical eligibility" (described more below) as a means to verify income qualified customers for the additional rebate to help simplify the application process for LMI customers.

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<sup>26</sup> 17 CCR § 95483 (c)(1)(A)(6)(a)(vi)

- PG&E will allow person-to-person sales to qualify for the rebate with proof of valid vehicle registration and documentation of title transfer in order to ensure access for LMI customers, many of whom do not purchase vehicles from dealerships.

### **Customer Eligibility**

PG&E residential electric customers who have purchased a qualifying pre-owned Battery Electric Vehicle (BEV) or Plug-in Hybrid Electric Vehicle (PHEV) within the rolling past six months of submitting the application are eligible for the rebate.<sup>27</sup> The vehicle must be a plug-in electric, highway-rated, personal passenger vehicle registered to a residential PG&E account. A qualified pre-owned EV must have either:

- 1) greater than 7,500 miles on the odometer at the time of purchase;<sup>28</sup> or
- 2) Title transfer or registration documents that indicate transfer of ownership.

If neither of those criteria are met, PG&E may consider providing a rebate, at its sole discretion, if the applicant can provide other evidence demonstrating that the vehicle has been previously owned. The vehicle must be registered at a current PG&E electric account address and the customer must submit a valid vehicle registration and title transfer or purchase agreement. There will be a limit of one rebate per VIN per 12 months with a limit of three rebates per VIN in the program.

In support of equity customers per D.20-12-027, customers below 80% of the AMI are eligible for the additional income-qualified rebate and will be required to provide proof of eligibility through income documentation or “categorical eligibility.” Proof of categorical eligibility means customers must show proof of current enrollment in a program that requires income verification and has equal or stricter income limits. PG&E will work with the program implementer to develop the list of programs that would qualify for categorical eligibility verification. PG&E will use 80% of AMI as the income qualification because it maintains consistency with other EV programs and is one of the eligible definitions of equity in D.20-12-027 and CARB’s LCFS regulations.

### **Distribution of Revenue**

PG&E plans to provide a uniform base rebate amount of \$1,000 to any eligible customer who purchases or leases a pre-owned EV. Income qualified customers will receive an additional \$3,000 rebate for a total of a \$4,000 rebate.

The rebate values were determined through analysis of pre-owned EV market data and the average price difference of a pre-owned EV compared to a comparable ICE vehicle, benchmarking with existing pre-owned EV rebate programs, and discussions with CBOs implementing programs to serve LMI customers. PG&E plans to revisit the rebate amount after six and 12 months into the program’s implementation, as well as every 12 months after until the end of the program. PG&E may adjust the rebate levels (e.g.

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<sup>27</sup> For example, if a customer submits a rebate application in December 31, 2022, they must have purchased their vehicle after May 31, 2022.

<sup>28</sup> This requirement was developed in discussion between the IOUs and is based off of the vehicle eligibility used in the Clean Vehicle Rebate Program that requires a new vehicle to have an odometer reading below 7,500 miles at the time of purchase or lease. <https://cleanvehiclerebate.org/eng/eligibility-guidelines>

increase the dollar amount for the equity rebate) or the number of rebates (e.g. limit the number of non-equity rebates issued) in response to customer participation, market factors, and revenue spend requirements. PG&E will work with the implementer to appropriately alert the customers to a change in rebate levels similar to the process used in PG&E's Clean Fuel Rebate program.<sup>29</sup> PG&E will include a summary of the rebate information each year in its Annual LCFS Forecast Advice Letter required by D.14-12-083.

Customers will apply for the rebate via an online or paper application and submit the necessary documentation. The program implementer will process the applications and issue the appropriate rebate value to the customer. PG&E will determine the rebate issuance method – direct deposit or check – after additional consideration of the costs and processes of the program implementer contracted for the program.

### **Program Administration**

PG&E will contract with a third-party to implement the Pre-Owned EV Rebate Pilot. Upon approval of the Implementation Plan by the CPUC, PG&E will develop a Scope of Work (SOW) for the program and issue a Request for Proposals (RFP) in order to find the most qualified and cost-competitive implementer.

Once a third-party implementer is contracted, they will be responsible for:

- **Pre-launch activities:** Developing a detailed program implementation plan (along with the PG&E team); building a program website, online application, and back-end system to manage program applications; and developing an Evaluation, Measurement, and Verification (EM&V) plan with the PG&E team.
- **Program implementation activities:**
  - **Application processing:** Screening applications for eligibility, delivering rebates to qualified applicants, providing customer support and troubleshooting. Details of website and application design, back-end processes and timeline for application processing, and rebate delivery method will be determined through the development of the SOW and with the selected third-party as appropriate.
  - **ME&O:** Supporting program marketing efforts as described below.
- **Program evaluation activities:** Tracking and reporting on key program metrics as listed in the program evaluation section below; administering a post-rebate survey to each customer with questions about the influence of the rebate on their purchasing decision and with educational information about EV rates and charging. The implementer will share the survey responses with PG&E to aid in program evaluation and generating key customer insights.

PG&E will also support program implementation and will be responsible for:

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<sup>29</sup> During the Clean Fuel Rebate program, any program changes were communicated via a pop-up notice or “splash page” on the application that required the customer to read and acknowledge the update before proceeding to the application. PG&E also updated its program website page and FAQ page with the new program information.

- **Pre-launch activities:** Running the RFP process, setting up the selected implementer, working with implementer to develop a detailed program implementation plan, supporting PG&E ME&O activities.
- **Program execution activities:** General implementer oversight, data review and reporting, ME&O coordination, program evaluation, and ad hoc requests.

## **ME&O**

As mentioned earlier in Section A.3, the ME&O plan for this program will include a general ME&O plan and an equity-focused ME&O plan to be implemented as part of the CBO partnership.

The intended general ME&O plan will include tactics to reach all eligible customers and is to be executed by PG&E and/or the Implementer. To be efficient and effective in targeting non-equity customers, the ME&O approach plans to use direct-to-customer, low-cost digital channels. Doing so enables stronger targeting capabilities and the ability to learn in-market what outreach is performing well with data and optimize as needed. Equity customers will also be reached by general ME&O but will not be the primary focus, as the equity-focused ME&O plan will fill that role. Because PG&E will be closely tracking and potentially increasing the ratio of income-qualified rebates to base rebates to ensure compliance with the equity targets, the general ME&O plan may be adjusted based on program participation needs. Any changes to the general ME&O budget will be included in the Annual LCFS Forecast AL.

The equity-focused ME&O plan will be executed by the contracted CBOs and primarily target low-income customers who meet the income qualifications for the additional rebate but will also include underserved and hard-to-reach equity customers such as those in Disadvantaged Communities (DACs) or tribal communities. The plan will likely include high-touch, one-to-one outreach to have deeper conversations and capitalize on existing customer relationships with CBOs. Additionally, it is anticipated that equity customers may have a longer journey to EV adoption requiring additional education and time. Equity outreach is expected to require more budget given the resource intensive nature of the audience and the importance of fairly compensating CBOs for their time and work. The specific approach and tactics to reach the intended equity customers for this program will be developed in partnership with the selected CBOs.

For both audience segments, ME&O would focus on opportunities to stack offers to help potential EV customers make their vehicle purchase more attainable. Some specific ME&O tactics and responsibilities for each entity include:

- **PG&E activities:** Implementing message integration into residential newsletters, email campaigns to existing customer segments (including equity customers), social media targeting specified geographic regions, co-marketing with existing PG&E EV and energy programs, updates to PG&E's EV Home Page and the EV Savings Calculator, and development of marketing collateral
- **Implementer activities:** Implementing email campaigns to existing customer segments and social media campaigns
- **CBO activities:** Conducting targeted outreach to equity customers which may include hosting webinars to communicate program eligibility and application directions, and co-development of

marketing collateral with PG&E for CBO call-centers and in-person events (including multi-lingual options)

This is not an exhaustive list of ME&O activities and specific strategies may be adjusted based on the implementer selected, the specific CBO partners, and customer participation. These ME&O efforts will be critical to raising awareness about the program and encouraging participation, and their effectiveness will be measured by number of customers reached and number of rebate applicants.

The ME&O activities for the program are specific to raising awareness and supporting participation in the Pre-Owned EV Rebate Program and are therefore not duplicative of any existing ratepayer funded ME&O. The activities will leverage existing marketing channels and program outreach to include information about the rebate.

### **Program Evaluation**

As described in the Portfolio Structure section (B.3), evaluation includes both regular assessment of program performance and customer satisfaction, as well as more formal reports and research studies determined by the specific needs of the program. The program's evaluation activities will include:

- **Key metrics:** PG&E will collect and analyze program data on a regular cadence to assess the effectiveness of the program. Key data points include:
  - Number of base rebates issued
  - Number of additional income-qualified rebates issued
  - Evidence of the rebate's influence on the customer's vehicle purchase (via attribution questions on the post-rebate survey).
  - Location of participants throughout the service territory
  - Application turnaround time
  - Application rejection rate

PG&E will include additional data collection metrics for the pilot once the implementer is contracted and the pilot implementation plan is finalized.

- **ME&O effectiveness:** PG&E will set up a regular cadence of program status reporting with the implementer (e.g. weekly/monthly) and CBOs to evaluate progress of ME&O efforts and identify opportunities for process improvements. PG&E will also regularly evaluate internal ME&O efforts to identify any need for change.
- **Customer experience:** PG&E will review customer survey responses and document key customer insights about the EV purchasing journey to inform program improvements and customer outreach.
- **Additional studies:** PG&E will assess the specific needs, challenges, and opportunities of the program as it is implemented and will suggest additional traditional evaluations or specific research studies as appropriate.

### **Estimated Budget and Implementation Schedule**

PG&E targets administering up to 45,000 rebates in the three-year program for an estimated total program budget of \$87 million. PG&E developed the target number of rebates by applying historical participation levels from the Clean Fuel Rebate to a forecast of the pre-owned EV market. With targeted ME&O, PG&E aims increase the rate of participation of income-qualified customers each year in the program. PG&E assumed a steady program participation rate of 63% of the eligible pre-owned EV market for a total of ~44,600 total rebates issued. Of the ~44,600 total rebates issued, PG&E assumed an increasing percentage would be for income-qualified customers for a total of ~11,300 rebates. Estimated annual spend for the program is detailed in the table below.

**Table 11: Estimated Budget for Pre-Owned EV Rebate Program**

Budget in Millions	2021	2022	2023	2024	2025	Total
Pre-Owned EV Rebate - Base	\$0.00	\$11.03	\$11.18	\$11.19	\$0.00	\$33.39
Pre-Owned EV Rebate - Equity	\$0.00	\$11.03	\$14.90	\$19.18	\$0.00	\$45.11
Implementer Program Admin						
PG&E Administration	\$0.11	\$0.27	\$0.28	\$0.28	\$0.11	\$1.06
General ME&O						
Equity ME&O						
Evaluation	\$0.00	\$0.43	\$0.44	\$0.45	\$0.46	\$1.79
<b>TOTAL</b>	<b>\$0.15</b>	<b>\$24.44</b>	<b>\$28.34</b>	<b>\$32.68</b>	<b>\$0.94</b>	<b>\$86.55</b>

*Note: Numbers may not add up due to rounding*

The budget estimates may change based on adjustments to the rebate levels, number of rebates issued, ME&O strategies, customer participation, and market factors. PG&E may also extend the length of the program based on customer interest and portfolio needs and will work closely with Energy Division Staff on any adjustments to the program. PG&E will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report.

Assuming PG&E receives approval for this advice letter by Q3 2021, PG&E anticipates to begin distributing rebates in Q2 2022 as shown in the schedule below.

**Table 12: PG&E’s Preliminary Schedule for Pre-Owned EV Rebate Program Launch**

June 2021	PG&E files Tier 2 AL
Q3 2021	Estimated timing of possible Commission approval of Tier 2 AL <sup>30</sup>
Q4 2021	PG&E issues RFP
Q1 2022	PG&E contracts with third-party Implementer and begins program set up
Q2 2022	PG&E/Implementer launch ME&O campaign and Implementer begins receiving rebate applications
Q2 2022	Implementer begins distribution of rebates

<sup>30</sup> CPUC Zero-Emission Vehicle Action Plan - [https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC\\_ZEV-Action-Plan-te-mtx-2.5.pdf](https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC_ZEV-Action-Plan-te-mtx-2.5.pdf)

**Program #2: Multi-Unit Dwelling and Small Business Direct Install Pilot**

In the Multi-Unit Dwelling (MUD) and Small Business Direct Install Pilot, PG&E will work with a third-party implementer to install low-power chargers (Level 1 or Level 2) at MUD and small business sites that have excess capacity on their electric panel, at no cost to the site host. The majority of sites in this turnkey pilot will be located in equity communities, serving equity customers. PG&E will complement the infrastructure investment with an education campaign for the residents/tenants of each site to increase awareness about the charger installation and other EV benefits and incentives. Pending CPUC approval of the pilot, PG&E plans to set up the pilot in Q4 2021 – Q2 2022 and launch the program in Q3 2022.

Multi-Unit Dwelling and Small Business Direct Install Pilot	
Customer Segment	Multi-unit dwellings and small businesses
Pilot Design	Install low-power chargers (Level 1 and Level 2) at small MUDs and small businesses that have excess capacity on panel
Implementation Structure	Third-party implemented – implementer responsible for customer acquisition and infrastructure installation
Pilot Goals	<ul style="list-style-type: none"> <li>• Increase access to charging for underserved customers</li> <li>• Test ability to defer panel and/or grid upgrades while still meeting customer charging needs with low-power charging</li> <li>• Understand charging needs and behaviors of small business customers</li> </ul>
Timeframe & Launch Date	Three years; Q3 2022 (anticipated)
Total budget	\$25.23 million
Funding source	Residential holdback revenue

**Policy and Market Support**

*Barriers Addressed*

The two primary customer barriers addressed through this pilot are access to charging infrastructure and education and awareness about EVs. The lack of access to home charging options for customers who live in MUDs is a significant barrier to widespread TE. Homeowners in California are more than three times as likely to own an EV compared with those who do not own a home,<sup>31</sup> leaving MUD residents with fewer, and very likely more expensive, charging options. The latest Executive Order N-79-20 has set an ambitious target of 100% zero-emission new passenger car sales by 2035<sup>32</sup> and increasing access to charging for MUD residents will be critical to successfully achieving that goal. The California Energy Commission’s Staff Report on AB 2127 EV Charging Infrastructure Assessment estimates that supporting MUDs in this transition may require between 258,000 and 316,000 Level 1 and Level 2 charging ports.<sup>33</sup>

<sup>31</sup> S. Hardman et al., 2018. “A Review of Consumer Preferences of and Interactions with Electric Vehicle Charging Infrastructure.” Transportation Research Part D: Transport and Environment 62: 508–23, p. 518

<sup>32</sup> Governor Newsom’s Executive Order N-79-20 – <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>

<sup>33</sup> California Energy Commission’s Staff Report on AB 2127 EV Charging Infrastructure Assessment, pp. 30

There are over 1 million units at multi-family properties in counties across PG&E's service territory,<sup>34</sup> indicating that a significant number of customers in PG&E's Service Territory that may not have access to affordable charging if they are EV drivers or are thinking about purchasing an EV. For MUD property owners, cost – both upfront and over time – is the primary barrier to Electric Vehicle Supply Equipment (EVSE) installation at a site. These challenges are well documented in Ecology Action's Innovation in EV Charging for MUDs Report<sup>35</sup> and Energy Solutions' Low-Power EV Charging Pilot with Peninsula Clean Energy (PCE).<sup>36</sup> Many MUD property owners do not have budget available for EVSE installation and/or are concerned about a negative impact on net operating revenue for the installation and the operation and maintenance of the charging stations. However, in a survey conducted by Ecology Action for their report, 72% of survey respondents said they would be willing to install EV charging stations if a direct installation program were offered at no-cost.<sup>37</sup>

While MUD property owners may understand that installing EVSEs provides benefits – including increasing the value of the rental property – there has historically been low EV adoption among renters, especially low-income MUD residents. This is likely due to the ineffectiveness of traditional marketing and outreach channels in increasing awareness about the benefits of EVs and the incentives available to those customers. A targeted education campaign for the residents of each MUD site receiving an EVSE installation would increase awareness and education about the chargers installed at their residence and would be an opportunity to inform customers about other available EV incentives, including a potential Pre-Owned EV Rebate program, and resources to support them in their electrification journey.

The specific needs and barriers to charging for small businesses are less known. However, as the Small Business Utility Advocates point out in their comments on the TEF, “it is vitally important to address barriers that exist for light duty vehicle drivers. Light duty vehicles are commonly used in many types of small businesses including small businesses that manage commercial fleets.”<sup>38</sup> PG&E is also working on a research study to understand how to better support small businesses interested in installing EV chargers. The study will deliver findings in an action-oriented playbook for PG&E and is expected to be completed in June 2021. The recommendations in the playbook will be used to design the specific implementation details of the pilot to support the small business site hosts and generate lessons learned about the effectiveness of the recommended strategies. This pilot will provide much needed data on the barriers small businesses face in installing EV charging infrastructure that can inform future programs.

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<sup>34</sup> PG&E conducted a Multi-family characterization project in January 2020

<sup>35</sup> Ecology Action on behalf of East Bay Clean Energy (2020) “Innovation in Electric Vehicle Charging for Multi-Unit Dwellings,” accessed at:

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=235942&DocumentContentId=68936>

<sup>36</sup> Peninsula Clean Energy Case Study (2021) “Low-Power EV Charging,” accessed at:

<https://www.peninsula-cleanenergy.com/wp-content/uploads/2021/05/Low-Power-Case-Study-1.pdf>

<sup>37</sup> Ecology Action on behalf of East Bay Clean Energy (2020) “Innovation in Electric Vehicle Charging for Multi-Unit Dwellings” pp. 8, accessed at:

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=235942&DocumentContentId=68936>

<sup>38</sup> Small Business Utility Advocates reply comments on the Proposed Decision concerning LCFS Revenue Utilization pp. 1-2

*Program Alignment*

PG&E has been working to address the barrier of access to infrastructure for customers who may not have charging at home through the EVCN Program. EVCN targets to install approximately 4,800 ports at MUDs and workplaces before the program ends in 2021 and there are a significant number of customers who indicated interest in the program but were unable to participate given the regulatory cost cap. Furthermore, since closing its waitlist in Q2 2019, PG&E has allowed customers to complete an online interest form, which has been submitted by nearly 700 customers to date. PG&E plans to propose a Phase II of the EVCN program to address customer demand and support the state in meeting infrastructure targets laid out in AB 2127. While the details of PG&E’s EVCN II proposal are not final subject to change, as informed by the *Proposed Decision Setting Near-Term Priorities for Transportation Electrification Investments by the Electrical Corporations* in R.18-12-006, the EVCN program participation may be infeasible for many smaller MUDs or workplaces who can only install a small number of ports for a few reasons. First, the projects may not pass PG&E’s cost thresholds because they do not achieve economies of scale associated with larger sites. Second, customers may not be able or willing to meet the cost share that will likely be proposed. By limiting Direct Install projects to those that do not require any To-The-Meter (TTM) upgrades, this Direct Install pilot would provide cost-efficient support for those customers for whom EVCN Phase II is not a good match.

The MUD/Small Business Direct Install Pilot builds off of the lessons learned and interested customers from EVCN and is specifically designed to be complementary to the proposed Phase II as currently drafted,<sup>39</sup> in order to support customers who have not been and/or may not be served by the Utility’s larger infrastructure programs.

	<b>Charger Power Level</b>	<b>Utility Infrastructure Investment</b>	<b>Target # of ports per site</b>
<b>EVCN</b>	Level 2	TTM and Behind-the Meter (BTM)	>10 ports
<b>EVCN Phase II (as drafted)</b>	Level 2 and DC Fast Charge	TTM and BTM	PG&E anticipates EVCN Phase II will target higher port count sites (>10) to reduce cost per port in line with recent CPUC guidance <sup>40</sup>
<b>MUD/Small Business Direct Install</b>	Level 1 and Level 2	Limited BTM, leverage existing panel capacity	Support customers ineligible for EVCN and those unable to meet required cost share in a Phase II

Additionally, there are some site hosts, most likely in equity communities and serving low-income customers, who are unlikely to install infrastructure on their own given the high upfront costs. While there are a few State and Air District programs that offer rebates or other forms of financial support for EVSE installation, many of the programs have some cost-sharing or data collection requirements that discourage property owners from participating. For example, the BAAQMD Charge! Program requires a 10% cost

<sup>39</sup> PG&E is still finalizing the Phase II proposal and details may change.

<sup>40</sup> CPUC [Proposed Decision Setting Near-Term Priorities for Transportation Electrification Investments by the Electrical Corporations](#) (R.18-12-006)

share and strict usage requirements that has made participation by equity communities, such as AB 617 communities, challenging.<sup>41</sup> Therefore, the Direct Install pilot will be especially important for customers such as affordable housing complexes, small MUDs with only a few units, and small businesses in equity communities.

PCE has conducted a small pilot to install nine Level 1 low-power charging ports at two sites,<sup>42</sup> and Ecology Action, in partnership with and East Bay Community Energy (EBCE), conducted a study to better understand whether and how low-cost direct installation EV charging could support MUDs.<sup>43</sup> Both those efforts provide important lessons learned for this pilot; however, this pilot would be larger, aiming to install ~2,000 ports, and will be the first to install low-power charging at small businesses and assess its value to that customer segment. It would help fill in a gap in support for small businesses and generate valuable data that can inform future program design.

Lastly, this pilot would be aligned with CARB's direction regarding Holdback Equity Projects. The LCFS regulation lists investment in public EV charging infrastructure and EV charging infrastructure in multi-family residences serving equity communities as one of the eligible equity projects.<sup>44</sup> PG&E has not yet determined whether to include private charging for small businesses as part of the pilot and will work with the implementer to determine the final design. If private charging at small businesses is included to meet small business needs, PG&E will submit an application to CARB's Executive Officer for approval of that element of the pilot as promoting TE in equity communities and therefore an eligible equity holdback program.<sup>45</sup>

#### *Stakeholder Feedback*

PG&E met with many stakeholders in the process of developing this pilot including CBOs, EJ advocates, government agencies, small business advocates, program implementers, and MUD property managers. Some stakeholders had implemented similar programs, some worked with the same customers targeted in the pilot, and some were customers who could be served by the pilot. Stakeholders found this pilot of particular interest as it addressed a well-known barrier for an underserved segment and thought that the direct install model at no-cost to the property owner is needed to effectively serve equity communities. Specific examples of stakeholder feedback incorporated into the pilot design include:

- Both for-profit and not-for-profit small businesses and organizations (such as churches) will be eligible for the pilot to support for community organizations that are pillars in equity communities.
- The implementer will first target affordable housing complexes during customer acquisition, then sites in DACs and low-income census tracts to ensure the pilot is serving low-income customers first.

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<sup>41</sup> Per a conversation with BAAQMD staff

<sup>42</sup> Peninsula Clean Energy Case Study (2021) "Low-Power EV Charging," accessed at:  
<https://www.peninsulacleanenergy.com/wp-content/uploads/2021/05/Low-Power-Case-Study-1.pdf>

<sup>43</sup> Ecology Action on behalf of East Bay Clean Energy (2020) "Innovation in Electric Vehicle Charging for Multi-Unit Dwellings," accessed at:  
<https://efiling.energy.ca.gov/GetDocument.aspx?tn=235942&DocumentContentId=68936>

<sup>44</sup> 17 CCR § 95483 (c)(1)(A)(6)(a)(iii)

<sup>45</sup> 17 CCR § 95483 (c)(1)(A)(6)(a)(vii)

- The pilot will provide upfront cost coverage for the networking and software fees for the EVSEs for two years after installation to further lower the total cost of installing chargers for site hosts.
- Each project site will have flexibility in the design for chargers – level 1 vs. level 2 chargers and public vs. private charging – so that the solution is matched to the specific needs of the site.

### **Customer Eligibility**

A MUD property or small business site is eligible for the MUD and Small Business Direct Install Pilot if they meet the following criteria:

- Receives electric service from PG&E
- The property site configuration meets the cost-effective, low-power charging requirements as determined in the Implementer RFP and assessed by the third-party implementer in pilot implementation.
- EVSE installation does not trigger upstream grid updates
- While any site meeting the configuration requirements would be eligible, the implementer will have specific customer acquisition goals in order to first serve the target customers for the pilot: affordable housing complexes, small MUDs with fewer units (likely 5-10 units), and small businesses in DACs and low-income census tracts. The implementer will have a goal that the majority of sites are serving equity customers and communities, and any eligible non-equity site will likely have some form of cost share.

In support of equity per D.20-12-027, PG&E aims to have all sites participating in the pilot be in equity communities or specifically serving equity customers (e.g. affordable housing units). However, because of the many factors that may contribute to ineligibility – lack of panel capacity, challenges with tenant parking, increased costs for ADA requirements, competing priorities for the property or business owner (e.g. other maintenance issues) – PG&E may allow some non-equity sites in the pilot with some form of cost sharing. PG&E has not yet determined the specific customer acquisition goals for the pilot and will develop those with continued input from stakeholders for the Implementer RFP process. Determining customer eligibility will be a very high-touch and labor-intensive process for the implementer, therefore PG&E believes it is important to set goals for the pilot but allow for adjustments based on the market.

PG&E has also not determined the specific definition of small business for this pilot and plans to work with SBUA and other stakeholders to develop a definition that includes the various types of small businesses facing barriers to TE. PG&E will work closely with Energy Division staff to provide updates about the customer eligibility details for the pilot.

### **Distribution of Revenue**

The pilot will cover all EVSE installation costs and two years of networking and software fees for the site host. The costs of each project will be site-specific, dependent on the charging needs and site configuration. The implementer will be responsible for procuring the EVSE and coordinating the installation at the site so that the site host has no upfront costs. The Implementer will also be required to meet an average cost per port across all of the sites in the pilot. In order to prioritize sites in equity

communities, serving equity customers while also supporting cost-effectiveness in the pilot, PG&E will work with the implementer to potentially impose a minor cost share requirement for project sites in non-equity communities. PG&E will determine the final targets for the implementer (number of charging ports, number of sites, average cost per port) with input from internal and external stakeholders including EJ advocates, CBOs, property managers, and program implementers, and continued market research, and include them in the SOW for the implementer RFP.

### Program Administration

PG&E will hire a third-party to implement this pilot. Upon approval of the Implementation Plan by CPUC, PG&E will develop a SOW for the pilot and issue an RFP in order to find the most qualified and cost-competitive implementer. Once a third-party implementer is contracted, they will be responsible for the following activities for the pilot:

- **Pilot set-up activities:** The implementer will coordinate ME&O materials and strategy with PG&E and any CBO partners, work with PG&E to determine list of eligible contractors and qualified EVSE(s) that can be used in the pilot, develop resources to aid customer site hosts after installation (including an operation and maintenance guide, FAQs, troubleshooting, and “how to charge” guides), and develop an EM&V plan with the PG&E team.
- **Pilot implementation activities:**
  - **Customer acquisition:** The implementer will target priority pilot participants first and then broaden outreach. Once a customer is engaged and agrees to a site walk, the implementer will perform a site assessment of the panel capacity, parking configuration, and potential location of chargers. The implementer will also work with the property manager to survey residents or employees to understand EV penetration/interest. Next, the implementer will work with site host to develop a project design for the site and then perform a technical assessment to ensure the project can be constructed within the target cost. Finally, the implementer will work with the property owner’s decisionmaker(s) to sign the project contract.
  - **EVSE Installation:** The implementer will coordinate with various entities before construction, including EVSPs, city or county permitting offices, electricians, building inspector, and site hosts to coordinate necessary materials and processes. The implementer and/or their contractor will install the EVSE onsite and perform any necessary post-construction inspections. PG&E has not yet determined the charger ownership model for the pilot and will work with the implementer to determine the best solution for each site host. If PG&E chooses to own the chargers on behalf of the site host, PG&E may use LCFS revenue generated to cover any cost of ownership, such as operation and maintenance (O&M).
  - **Post-construction:** The implementer will work with the property manager to create a site-specific O&M plan, provide additional resources for EVSE operation described above (i.e. FAQs, how-to guides), and support the CBOs as necessary to execute the education campaign at MUDs post-installation.
- **Pilot evaluation activities:** The implementer will be responsible for collecting and reporting key metrics for the pilot as described in more detail in the program evaluation section below. PG&E

is still determining the responsibilities of the implementer post-EVSE construction. Such responsibilities could include providing support for O&M and conducting resident and employee surveys to evaluate impact of EVSE installation on awareness and interest in EVs and other PG&E EV programs.

PG&E will also support pilot implementation and will be responsible for:

- **Pre-launch activities:** Running the RFP process, setting up the selected implementer, working with implementer to develop detailed pilot implementation plan, supporting PG&E ME&O activities.
- **Pilot execution activities:** General implementer management, implementer payments, data review and reporting, ME&O coordination and pilot evaluation.

Neither of the lists of activities for the third-party implementer nor for PG&E are intended to be exhaustive. PG&E will further develop the implementation details of the pilot for the SOW and RFP process and then will work closely with the implementer to finalize the pilot implementation plan.

## **ME&O**

As mentioned earlier in Section B.3, the ME&O plan for this pilot will include a general ME&O plan and an equity-focused ME&O plan to be implemented as part of the CBO partnership.

The intended general ME&O plan will be executed primarily by the Implementer as there are unique eligibility requirements for this pilot that require a high-touch customer outreach and acquisition approach. Based on the final number and types of sites to be targeted in the pilot, the Implementer will utilize a phased outreach approach for participation. Phase 1 will consist of outreach to affordable housing complexes, Phase 2 will consist of outreach to small businesses and MUDs with small unit numbers in DACs, low-income census tracts, and rural and tribal communities, and Phase 3 will consist of general outreach to all potentially eligible sites. This phased approach will ensure that pilot participation is open first to equity sites that meet the pilot requirements (e.g. additional capacity on the panel) while also working to serve as many eligible sites as possible within the pilot budget. PG&E will support the general ME&O to make potentially eligible customers aware of the pilot through existing channels and programs.

The equity-focused ME&O plan will be executed by the contracted CBOs and will include referrals of eligible site hosts to the implementer but will primarily be focused on execution of a specific education campaign focused on increasing awareness and education about EVs and EV charging for equity MUD residents in order to further the impact of the EVSE installation at the MUD sites in the pilot. Many residents may be unaware of the benefits of EVs and the incentives available to help lower the upfront purchase cost. The education campaign will include information about the specific EVSE installation at the property as well as information about rates and vehicle incentives, including the Pre-owned EV Rebate Program. The Utility and the CBO partners will develop the campaign collateral together to ensure consistent and effective messaging, including translation to other languages. Details of the campaign will

need to be determined once the CBO partners are selected but will likely include a digital toolkit, printed resources, and signage.

Some specific ME&O tactics and responsibilities for each entity may include:

- **PG&E activities:** Supporting general ME&O through email campaigns to existing customer segments, including equity customers (e.g. properties that have received energy efficiency rebates, EVCN waitlist), and co-marketing with existing PG&E EV and energy programs; co-creating a digital toolkit of pre-approved outreach messages by channel, which could include email, newsletters, social media, that an MUD site host can easily use for education outreach to tenants; creating signage for MUD site hosts to educate tenants on the benefits of an EV ownership and the charging infrastructure available on site.
- **Implementer activities:** Implementing targeted customer outreach via email campaigns to existing channels, canvassing and individual property outreach (e.g. affordable housing complexes, MUDs in DAC, small businesses in DACs (e.g. those certified by California's Small Business and Disabled Veteran Business Enterprise Certification Program), supporting coordination of MUD tenant education campaign
- **CBO activities:** Referring eligible site hosts to implementer for customer acquisition, co-creating education campaign material (including multi-lingual options) with PG&E, executing education campaigns at MUDs for residents including canvassing residents, working with property manager to contact residents, coordination with Access Clean California program

This is not an exhaustive list of ME&O activities and specific strategies may be adjusted based on the implementer selected, the specific CBO partners, and customer participation as the pilot is implemented. These ME&O efforts will be critical to educating site hosts, both MUD property owners and small business owners, about the value of EV charging at their site to encourage participation in the pilot and to increase usage of the chargers by raising awareness about the benefits of EVs and available incentives for the residents. ME&O efforts will be regularly evaluated and adjusted throughout the pilot as discussed further in the pilot evaluation section.

The ME&O activities for the program are not duplicative of any existing ratepayer funded ME&O and will leverage existing marketing channels and program outreach to include information about the pilot.

## **Program Evaluation**

As described in the Portfolio Structure section, evaluation includes both regular assessment of pilot performance and customer satisfaction, as well as more formal reports and research studies determined by the specific needs of the pilot. The pilot's evaluation activities will include:

- **Key metrics:** PG&E will collect and analyze pilot data on a regular cadence to assess the effectiveness of the pilot. Key data points include:
  - Average cost per port, average cost per site
  - Average number of chargers per panel, average number of chargers per site, average number of chargers per unit
  - Number of Level 1 chargers installed, per site and in aggregate
  - Number and power level of Level 2 chargers installed, per site and in aggregate

- Type and cost savings of power sharing or Automated Load Management (ALM) being utilized at the site
- Number of customers who completed each step of the customer acquisition journey (site survey, panel assessment, site concept design, contracting)
- Proximity to charging prior to participating in the pilot
- Number of EVs at each site pre-EVSE installation, at the end of the pilot, and two years after participating, and number of these EVs that took advantage of PG&E’s Pre-Owned EV Rebate
- Charger utilization data, if available
- Demographic information of the census tract (or the MUD community or small business if available)

PG&E will include additional data collection metrics for the pilot once the implementer is contracted and the pilot implementation plan is finalized. PG&E plans to share key lessons learned from the pilot, particularly about small businesses, publicly as appropriate.

- **ME&O effectiveness:** PG&E will set up a regular cadence of status reporting with the implementer (e.g. weekly/monthly) and CBOs to evaluate progress of ME&O efforts and identify opportunities for process improvements. PG&E will also regularly evaluate internal ME&O efforts to identify any need for change.
- **Customer experience:** PG&E will review customer survey responses and document key customer insights to inform pilot improvements and customer outreach.
- **Additional studies:** PG&E will assess the specific needs, challenges, and opportunities of the pilot as it is implemented and will suggest additional traditional evaluations or specific research studies as appropriate.

**Estimated Budget and Implementation Schedule**

PG&E is targeting to serve an estimated total of 450 sites over the three-year pilot with an estimated total of approximately 2,000 ports. Based on market research and discussions with implementers, PG&E has assumed an average number of five ports per MUD site and an average of three ports per small business site and an [REDACTED] for the pilot budget estimates. This includes costs for customer acquisition, program management, materials, construction, and ME&O. The estimated total pilot budget is \$25 million. Estimated annual spend for the pilot is detailed in the table below.

**Table 13: Estimated Budget for MUD-Small Business Direct Install Pilot**

Budget in Millions	2021	2022	2023	2024	2025	Total
EVSE Installation - Non-equity	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
EVSE Installation - Equity	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Implementer Program Admin	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
PG&E Administration	\$0.05	\$0.27	\$0.27	\$0.28	\$0.11	\$0.98
General ME&O	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Equity ME&O	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Evaluation	\$0.00	\$0.13	\$0.13	\$0.13	\$0.13	\$0.52
<b>TOTAL</b>	<b>\$0.05</b>	<b>\$6.42</b>	<b>\$9.01</b>	<b>\$9.06</b>	<b>\$0.69</b>	<b>\$25.23</b>

*Note: numbers may not add up due to rounding*

Budget estimates may change based on adjustments to customer acquisition targets, ME&O strategies, customer participation, and market factors. PG&E may also extend or reduce the length of the pilot based on customer interest and portfolio needs and will work closely with Energy Division Staff on any adjustments to the pilot. PG&E will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report.

Assuming PG&E receives approval for this advice letter by Q3 2021, PG&E currently anticipates beginning customer acquisition for the pilot in Q3 2022 as shown in the schedule below.

**Table 14: Preliminary Schedule for MUD/Small Business Direct Install Pilot Launch**

June 2021	PG&E files Tier 2 AL
Q3 2021	Estimated timing of possible Commission approval of Tier 2 AL <sup>46</sup>
Q1 2022	PG&E issues RFP
Q2 2022	PG&E contracts with third-party Implementer and begins pilot set up
Q3 2022	PG&E/Implementer launch ME&O campaign and Implementer begins customer acquisition

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<sup>46</sup> CPUC Zero-Emission Vehicle Action Plan - [https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC\\_ZEV-Action-Plan-te-mtx-2.5.pdf](https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC_ZEV-Action-Plan-te-mtx-2.5.pdf)

**Program #3: Residential Charging Solutions Pilot**

The Residential Charging Solutions Pilot is designed to provide educational resources and financial support to help customers install EV chargers at their home, either single family homes or MUDs, while avoiding or lowering the cost of electric panel upgrades and/or electric distribution grid upgrades. It will be implemented in phases, providing a customer assessment tool in Phase 1, a technology solution rebate in Phase 2, and additional financial support solutions in Phase 3. Pending CPUC approval of the pilot, PG&E plans to set up the pilot in Q1-Q2 2022 and launch Phases 1 and 2 in Q3 2022. The potential Phase 3 would be proposed in a future update to the Implementation Plan.

Residential Charging Solutions Pilot (Phase 1 and 2)	
Customer Segment	Residential customers (both single-family and MUD)
Program Design	Educational resources and financial support to install residential EV charging
Implementation Structure	PG&E implemented, with an RFQ to solicit the market for technology solutions
Program Goals	<ul style="list-style-type: none"> <li>• Increase access to home charging and reduce TCO by avoiding expensive upgrades</li> <li>• Lower TCO and increase access for equity customers</li> </ul>
Timeframe & Launch Date	Three years; Q3 2022 (anticipated)
Total budget	\$7.26 million
Funding source	Residential holdback revenue

**Policy and Market Support**

*Barriers Addressed*

The primary barriers addressed in this pilot are total cost of ownership (TCO) focused on charger installation cost, and education and awareness about EV charging. There are many components to a customer’s journey to electrify their vehicle, but questions about how to appropriately upgrade home charging capability appear to generate the most concerns among current EV owners and potential EV owners in a recent PG&E study, even trumping questions about the purchase cost of an electric vehicle.<sup>47</sup> While there are educational resources available regarding charging EVs at home, including PG&E’s EV Charging webpage,<sup>48</sup> not all customers are easily served by the traditional home charging setups described. For example, renters of single-family homes may desire a Level 2 charger to meet their daily driving requirements, but cannot install the charger because they do not own the home. Additionally, customers living in older homes with older electric panels may have less capacity available; installing a Level 2 charger could trigger an expensive panel upgrade or potentially a distribution grid upgrade making it a more costly and time-intensive process due to the additional work involved. Installing a Level

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<sup>47</sup> PG&E conducted a series of in-depth interviews with 14 customers from March to April about the EV journey to gain insight into consumer consideration of EVs and the vehicle decision-making process, including research sources, incentives, and barriers

<sup>48</sup> PG&E’s “Charging your electric vehicle” page and “Finding the right EV charging station for you” video can be accessed at: [https://www.pge.com/en\\_US/residential/solar-and-vehicles/options/clean-vehicles/electric/charger-options/electric-vehicles-charging-pge.page](https://www.pge.com/en_US/residential/solar-and-vehicles/options/clean-vehicles/electric/charger-options/electric-vehicles-charging-pge.page).

2 charger at home can cost between \$400 to \$1,500 depending on the type of charger and installation labor required. However, if a panel upgrade is necessary for installing the Level 2 charger, the cost range can increase to ~\$4,500 or even higher.<sup>49</sup> Stakeholders indicated that many LMI customers are renters and/or live in older homes, making this yet another barrier the LMI community faces to electrification.

The EV market continues to change and produce solutions matched to customers' needs; however, many customers are unaware of those solutions or may not be able to afford them. An example of a readily available technology solution that could potentially be provided by the Residential Charging Solutions pilot is an outlet splitter which would enable a customer with an electric dryer in their garage to utilize the existing 240 volt infrastructure and split the outlet between the dryer and a Level 2 EV charger without needing to upgrade their panel.<sup>50</sup> Providing information and financial support for solutions that enable streamlined and low-cost installation of Level 2 chargers can help address barriers for customers with solutions that are readily available.

### *Program Alignment*

Access to home charging goes a long way to help customers make the switch to electric, and PG&E is trying to make that experience better from start to finish. There are three levels to this: first, providing education and outreach to help customers navigate existing processes; second, tailoring the process to help customers find solutions that fit their specific situations; and third, supporting customers by reducing the cost through incentives or financing.

PG&E is currently focused on education about EV charging at home and provides several resources, including the EV Savings Calculator, PG&E's EV Charging webpage, and the PG&E Marketplace. These resources provide an overview of the types of home charging, an explanation of the process to install charging, a checklist for working with an electrician, and a non-curated list of available Level 2 EV chargers. The EV Savings Calculator does have some options to customize recommendations, but the current resources do not delve into "edge case" situations where a customer may be faced with additional barriers such as lacking electric panel capacity or the authority to install equipment.

Expanding the educational resources on PG&E's EV Charging webpage and EV Savings Calculator can increase customers' understanding about what charging technology solutions are available and which solutions may work best for their specific charging setup. PG&E plans to conduct customer research to inform the development of a "home charging wizard" assessment tool with questions about a customer's charging needs and home characteristics to help guide a customer to potential charging solutions for them. This would build off the results of PG&E's Home Charging Priority Review Project and further enhance the usefulness of the EV Savings Calculator and PG&E's EV Charging webpage.<sup>51</sup>

PG&E's Empower EV program will be its first pilot offering financial support for residential charging. The program will install Level 1 and Level 2 charging at income-qualified single-family households, paying up to \$500 for the charger and \$2,000 for any panel upgrades required. There are also many state

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<sup>49</sup> <https://homeguide.com/costs/electric-car-charging-stations-cost#installation>

<sup>50</sup> The Smart Splitter offered by NeoCharge is an example of a 240V outlet splitter technology.  
<https://www.getneocharge.com/shop-pages/smart-splitters>

<sup>51</sup> [Senate Bill 350 Transportation Electrification Priority Review Projects Final Evaluation Report](#), pp. 385

and local programs that provide incentives for a Level 1 or Level 2 EV charger,<sup>52</sup> but there are none that seem to be focused on solutions that support installation of EV chargers in a non-traditional situation (e.g. no panel capacity or do not have authority to install equipment). A rebate for a technology solution that enables Level 2 charging at home while avoiding a panel upgrade would fill in a gap in both the Utility's and State's program offerings.

The Residential Charging Solutions pilot is designed to fill the multiple gaps in existing home EV charging options and will be implemented in phases to deploy simple solutions quickly and add even more robust options as findings from other programs like Empower EV become available. Phase 1 will improve on existing online tools to help customers understand options for their specific needs, including the build-out of a "home charging wizard" tool. Phase 2 is focused on technology solutions that avoid panel upgrades, which will help renters and customers for whom a panel upgrade would mean additional expenses, complexity, and delays in installing a charging solution that fits their driving needs.

Phase 3 will build on Phases 1 and 2, expanding the offerings to include financial support for upgrading the panel, alternative financing options to lower the upfront cost and hassle of installing an EV charger at home, or other innovative solutions. Many stakeholders emphasized the need for financial support for panel upgrades to install EV charging, especially for LMI customers. The specific design and roll-out of Phase 3 is dependent on lessons learned from the Empower EV program, which will include rebates for panel upgrades and is anticipated to launch in Q3 2021 and run for at least a year. It will also depend on the outcomes of the Clean Energy Financing Order Instituting Rulemaking (OIR),<sup>53</sup> with an anticipated decision date of Q3 2022, which will inform what alternative financing options should be offered to residential customers.

### *Stakeholder Feedback*

PG&E met with a wide range of stakeholders to receive feedback on the design of this pilot including market vendors, program implementers, CBOs, and EJ advocates. Stakeholders were supportive of the pilot as being able to provide a valuable near-term solution to expand access to charging and support EV adoption now. Specific examples of stakeholder feedback incorporated into the pilot design include:

- The pilot will require proof of Level 2 charger ownership in the rebate process to ensure that the technology solution is being used to support EV charging specifically and immediately.
- Phase 3 may include a panel upgrade rebate (dependent on Empower EV lessons learned) to provide the much-needed financial support for panel upgrades for equity customers.
- Residential customers in both single-family homes and MUDs are eligible, which provides as much support as possible to equity customers more likely to live in MUDs.

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<sup>52</sup> For example: Sonoma Clean Power GridSavvy Program, Silicon Valley Power EV Charging station rebate program, Clean Cars For All, Driving Clean Assistance Program, City of Lodi EV Charger rebates program. City of Roseville EV Charger rebate

<sup>53</sup> Rulemaking 20-08-022 - Order Instituting Rulemaking to Investigate and Design Clean Energy Financing Options for Electricity and Natural Gas Customers.

**Customer Eligibility**

All PG&E electric customers with proof of a Level 2 EV charger purchase are eligible for the technology solution rebate in Phase 2. However, whether the technology will benefit a particular customer is dependent on the specific technology solution(s) that PG&E offers in the pilot (e.g. an outlet splitter will only help a customer with a 240-volt outlet in or close to an area where a vehicle could charge). PG&E plans to issue a Request for Qualifications (RFQ) to the market to solicit solutions that enable Level 2 charging at home without the need for a panel upgrade. PG&E will determine customer eligibility specifics based on which solution(s) from the RFQ is chosen and will work closely with Energy Division Staff to update the pilot plan. More details on the RFQ process are included in the Program Administration section. Providing rebates and incentives for low-income individuals for installing EV charging infrastructure at residences is an eligible equity project under CARB's regulation.<sup>54</sup> Therefore, there will be targeted outreach to potentially eligible customers residing in the equity communities as outlined by D.20-12-027 to encourage participation.

Eligibility for solutions offered in a Phase 3 of the pilot will be determined as the design of the solutions is finalized in the future.

**Distribution of Revenue**

In Phase 1, PG&E will develop a "home charging wizard" assessment tool. The purpose of the wizard is to coach residential customers through the process of understanding their charging needs, their home setup, and the potential solutions available to them. It will take the useful information on the PG&E EV Charging page about finding "The Right Charging Station For You" one step further and help the customer understand their specific needs and options.

The wizard will ask the customer a series of questions about their current EV and home set-up, such as:

- Do you have access to an outlet near the location where you typically park?
- Do you rent or own your home?
- How much energy do you need to charge your vehicle? (via questions about battery size/vehicle type and daily commute mileage)
- Do you have more than one EV or are you considering purchasing more than one EV?

Based on the answers to these questions, the customers would be provided a list of all their potential solutions (including the technology solution if relevant) and resources for how to find more information. It will also be valuable to link to this form from the EV Savings Calculator where there is an option for the customer to get help choosing which "Home Charging Availability" option is correct. Currently, the EV Savings Calculator asks three questions on home charging and tells the customer they would have "no charging availability" at home if they can't have an electrician install a charging station or if there is no regular power outlet close to where they park their car. The home charging wizard would help fill in this gap in customer education by providing a more robust set of questions and charging solutions to ensure that no customer feels left behind.

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<sup>54</sup> 17 CCR § 95483 (c)(1)(A)(6)(a)(vi)

Depending on the technology solution or solutions that PG&E selects from the RFQ, PG&E will offer a rebate of a set amount off the price of the technology solution(s), a point-of-purchase incentive of a set amount off the price of the technology solution(s), or bulk purchase the solution and offer it free of charge to customer participants for Phase 2 of the pilot.

The specific method of rebate/incentive/technology issuance is again dependent on the specific technology solution(s) selected. PG&E intends to maintain administrative simplicity in the implementation of the pilot and may offer the technology on PG&E's online Marketplace, work with the selected vendor(s) to offer the rebate through their website, or some other method.

### **Program Administration**

PG&E will administer the Residential Charging Solutions Pilot internally but may change that approach to a third-party based on customer participation, market factors, and the to-be-determined needs of Phase 3. In Phase 1, PG&E will update its website and tools to include a "home charging wizard" application, which may be developed internally or with a third-party. Concurrently, PG&E will issue an RFQ to identify cost-effective technology solutions, select vendor(s), and implement a rebate (dependent on the results of the RFQ). Finally, PG&E will design and launch a Phase 3 offering based on lessons learned from Phases 1 and 2, the Empower EV program, the Clean Financing OIR, and the state of the market.

Pilot implementation responsibilities for PG&E include:

- **Pre-launch activities:**
  - Conduct customer research to inform development of the customer assessment form (discussed below under ME&O) and coordinate with PG&E Solutions Marketing and IT to update webpages and the EV Savings Calculator as necessary. Support PG&E ME&O activities.
  - Manage the RFQ process and select technology solutions to offer in the pilot based on the solution's ability to enable Level 2 charging without triggering a panel upgrade, price point, safety certifications, and customer experience, among other factors. PG&E will work with the internal technology testing team to verify the safety of the potential solutions to be offered to customers.
  - Develop the detailed pilot implementation plan and work with the technology solution vendor(s) as appropriate to set up rebate/incentive/technology issuance process.
  - Develop an EM&V plan to provide insights into each Phase of implementation.
- **Pilot execution activities:**
  - Manage the rebate/incentive/technology issuance process, manage interactions with the technology vendor(s), provide customer support (dependent on the issuance method).
  - Track program data, review progress, manage reporting, handle ad hoc requests and issues.
  - Coordinate ME&O activities with PG&E's Solutions Marketing team and technology vendor as necessary.
  - Collect lessons learned and data from relevant programs and proceedings in order to design a Phase 3 of the pilot.

The list of implementation responsibilities is not intended to be exhaustive. PG&E will further develop the implementation details of the pilot for the RFQ and technology solution selection and then will work closely Energy Division Staff to update them on the final pilot implementation plan.

## **ME&O**

As mentioned earlier in Section B.3, the ME&O plan for this pilot will include a general ME&O plan and an equity-focused ME&O plan to be implemented as part of the CBO partnership.

The intended general ME&O plan will be executed by PG&E and will include the development and deployment of the “home charging wizard” in Phase 1 of the pilot. The specific customer outreach tactics for Phase 2 will depend on the final technology solution(s) selected, which will determine the specific type of customer who may be eligible. The PG&E Marketing team will leverage existing channels to integrate messaging about this pilot with information about EV rates, the pre-owned EV rebate, and other applicable programs.

The equity-focused ME&O plan for Phase 2 of the pilot will be executed as part of the CBO partnership and will leverage efforts to target equity customers for other PG&E EV programs. Collateral for the pilot will be co-created by the CBOs and PG&E and shared with customers as part of the outreach for other LCFS programs, Empower EV, energy efficiency programs, and others as applicable. The intent of this effort is to present customers with a suite of programs and offerings to support their transition to EVs and provide guidance for program applications. For example, customers interested in applying for the Pre-owned Rebate may also be eligible for the Residential Charging Solutions Pilot and therefore will be presented collateral on both programs for guidance on eligibility and completing their applications.

Some specific ME&O tactics and responsibilities for each entity may include:

- **PG&E activities:** Developing the “home charging wizard” tool, executing social media and email campaigns to existing customer segments (including and specifically equity customers located in DACs, low-income census tracts, Tribal lands, or rural census tracts), co-marketing with existing PG&E EV and energy programs (e.g. energy efficiency), updating to PG&E’s EV webpages and EV Savings Calculator.
- **CBO activities:** Co-marketing with ME&O efforts to target customers for other LCFS programs including Pre-Owned EV rebate, co-creating marketing collateral to educate customers on the program, executing targeted marketing to customers located in DACs, low-income census tracts, Tribal lands, or rural census tracts.

The above list of ME&O activities and specific strategies is not exhaustive and may be adjusted based on technology solution selected and customer participation as the pilot is implemented. These ME&O efforts will be critical to educating customers about at home EV charging solutions and encourage use of the technology solution with the rebate. ME&O efforts will be regularly evaluated and adjusted throughout the pilot as discussed further in the program evaluation section.

The ME&O activities for the pilot will be specifically designed to make eligible customers aware of the technology solution rebate and provide resources about home charging that are incremental to what is currently offered. The activities are not duplicative of any existing ratepayer funded ME&O and will leverage existing marketing channels and program outreach to include information about the rebate.

## Program Evaluation

As described in the Portfolio Structure section, evaluation includes both regular assessment of pilot performance and customer satisfaction, as well as more formal reports and research studies determined by the specific needs of the pilot. The pilot's evaluation activities will include:

- **Key metrics:** PG&E will collect and analyze pilot data on a regular cadence to assess the effectiveness of the pilot. Key data points include:
  - Number of rebates issued, number of rebates issued to equity customers
  - Number of customer home charging assessments completed
  - Number of clicks to home charging assessment page, number of clicks to the technology solution webpage
  - Number of referrals to technology solutions webpage from other programsPG&E will include additional data collection metrics for the pilot once the pilot implementation plan is finalized.
- **ME&O effectiveness:** PG&E will work with the CBOs and PG&E's marketing team to evaluate progress of ME&O efforts and identify opportunities for process improvements on a quarterly or semi-annual basis.
- **Additional studies:** PG&E will assess the specific needs, challenges, and opportunities of the pilot as it is implemented and will suggest additional traditional evaluations or specific research studies as appropriate.

## Estimated Budget and Implementation Schedule

For Phase 1 of the pilot, PG&E has allocated [REDACTED] general ME&O budget in 2022 for the development of the "home charging wizard". For Phase 2 of the pilot, PG&E is targeting to issue approximately 10,000 rebates over the three-year pilot. The rebate target is based on PG&E best estimation of eligible customers who are renters and have an existing 240v outlet in their garage and could benefit from an outlet splitter technology. The rebate target may need to be adjusted once the specific technology solution is identified. Based on market research and discussions with implementers, PG&E has set the rebate amount at [REDACTED]. The rebate amount may be adjusted slightly based on the type of technology solution(s) selected, the cost of the solution(s), and the specific method of issuing the solution(s). The estimated total pilot budget including rebates, program administration and ME&O is \$7.26 million. The cost of a potential Phase 3 of this pilot is not included in

Table 15 as it will be proposed in a future update to the Implementation Plan. Estimated annual spend for the pilot is detailed in the table below.

**Table 15: Estimated Budget for Residential Charging Solutions Pilot (Phase 1 and 2)**

Budget in Millions	2021	2022	2023	2024	2025	Total
Tech. Solutions Rebate - Non-equity						
Tech. Solutions Rebate - Equity						
PG&E Administration	\$0.05	\$0.15	\$0.15	\$0.15	\$0.06	\$0.56
General ME&O	\$0.00	\$0.27	\$0.02	\$0.02	\$0.00	\$0.30
Equity ME&O						
Evaluation	\$0.00	\$0.04	\$0.04	\$0.04	\$0.04	\$0.15
<b>TOTAL</b>	<b>\$0.05</b>	<b>\$1.75</b>	<b>\$2.68</b>	<b>\$2.68</b>	<b>\$0.09</b>	<b>\$7.26</b>

*Note: numbers may not add up due to rounding*

As mentioned earlier, the budget estimates may change based on adjustments to the rebate amount, ME&O strategies, customer participation, and market factors. PG&E may also extend the length of the pilot based on customer interest and portfolio needs and will work closely with Energy Division Staff on any adjustments to the pilot. PG&E will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report.

Assuming PG&E receives approval for this advice letter by Q3 2021, PG&E currently anticipates beginning issuing pilot rebates in Q3 2022 as shown in the schedule below.

**Table 16: PG&E’s Preliminary Schedule for Residential Charging Solutions Pilot Launch**

June 2021	PG&E files Tier 2 AL
Q3 2021	Estimated timing of possible Commission approval of Tier 2 AL <sup>55</sup>
Q1 2022	PG&E begins Phase 1 and issues RFQ for Phase 2
Q2 2022	PG&E completes Phase 1 and selects technology solution(s) and sets up Phase 2
Q3 2022	PG&E launches ME&O campaign and begins issuing rebates and executing Phase 2

<sup>55</sup> CPUC Zero-Emission Vehicle Action Plan - [https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC\\_ZEV-Action-Plan-te-mtx-2.5.pdf](https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC_ZEV-Action-Plan-te-mtx-2.5.pdf)

**Program #4: Resilient Charging Pilot**

The resilient charging pilot will 1) identify EV drivers in High Fire Threat Districts (HFTDs) and areas likely to be impacted by Public Safety Power Shutoff (PSPS) events and survey them about their interest in Vehicle-to-Home (V2H) solutions to support their resiliency, 2) develop a baseline for EV driver charging behavior before a PSPS event and 3) test customer experience and valuation of a third-party platform that provides proactive communication and/or managed charging of EVs as a resiliency service. Dependent on CPUC approval of the pilot, PG&E plans to set up the pilot in Q4 2021/Q1 2022 and launch the pilot in Q2 2022.

Resilient Charging Pilot	
Customer Segment	Residential customers in High Fire Threat Districts and areas likely to be impacted by PSPS events
Program Design	Third-party software to communicate with customers and/or actively manage EV charging for the customer prior to a PSPS event to ensure they are fully charged during an emergency
Implementation Structure	Third-party implemented – implementer responsible for customer enrollment, communication, and managed charging during events
Program Goals	<ul style="list-style-type: none"> <li>• Increase resiliency for EV customers during power shutoffs</li> <li>• Improve data on EV customers in targeted areas and their valuation of V2H solutions</li> <li>• Test customers interest/valuation of direct load control service</li> <li>• Identify lessons learned about managed charging that can inform other programs</li> </ul>
Timeframe & Launch Date	One year; Q2 2022 (anticipated)
Total budget	\$4.76 million
Funding source	Residential holdback revenue

**Policy and Market Support***Barriers Addressed*

Per section 3.10 of D.12-20-027, the IOUs must expend up to 20% of the annual LCFS holdback proceeds on resiliency projects that benefit existing or future EV drivers. The Decision defines those resiliency projects in two categories: 1) projects that lead to the installation of EV charging facilities at specified locations or other innovative ways that support charging and 2) pilot technologies that allow EV owners to use their EVs in the event of power shut-offs.

The primary resiliency barrier addressed in this pilot is customers' ability to charge their vehicles in the event that grid outages prevent them from fueling their EVs where and when they normally would. One of the biggest barriers to EV adoption is the fear of not being able to use the EV due to a depleted battery and the unavailability of charging.<sup>56</sup> This concern is magnified with the risk of being unable to drive an EV during a disaster. PG&E is committed to reducing the impacts of severe fire weather on the electric system and has been deeply focused on effectively executing successful, customer-centric PSPS events as

<sup>56</sup> Singer, Mark "The Barriers to Acceptance of Plug-In Electric Vehicles: 2017 Update" National Renewable Energy Laboratory. 2017. <https://www.nrel.gov/docs/fy18osti/70371.pdf> (Accessed on March 13, 2021)

necessary. Providing a solution that can help ensure an EV customer has an adequate charge for their vehicle before the power is potentially shut-off can help increase the resiliency of current EV drivers and make potential EV-buyers customers more confident in electrifying. Additionally, ensuring that customers have a fully charged EV prior to a grid outage will be critical for the success of V2H solutions that would further support a customers' resiliency.

### *Program Alignment*

Pursuant to requirement 6 in section 3.11, the Resilient Charging Pilot is well-aligned with other TE-related utility resiliency efforts. PG&E's current EV resiliency efforts include continuing to improve communications to EV customers to alert them to where energized charging is during a PSPS event and the deployment of the DC Mobile Fast Charging Pilot, as required by the PSPS Phase 2 OIR Decision 20-05-051. That pilot will test the feasibility and cost-effectiveness of deploying mobile DC fast chargers in highly impacted PSPS locations within PG&E's service territory. It will be conducted during the 2021 wildfire season and will produce key lessons learned to inform future EV resiliency pilots, including those funded by LCFS. PG&E's current EV resiliency efforts provide important resiliency support for EV drivers during de-energization. PG&E's Resilient Charging Pilot proposed here aims to provide more proactive support for EV drivers *before* a PSPS event, testing various ways to encourage active charging in advance of an event.

The pilot is also aligned with Commission policy on vehicle-grid integration (VGI) pursuant to requirement 7 in section 3.11. The Commission's VGI Strategy Decision<sup>57</sup> aims to maximize the use of feasible and cost-effective EV integration into the electrical grid by 2030 and gives utilities the opportunity to research VGI applications.<sup>58</sup> PG&E plans to focus its VGI piloting efforts authorized by the VGI Decision on bidirectional charging and high value VGI use cases. The Resilient Charging Pilot complements PG&E's bidirectional research by exploring one-directional load management, avoiding duplication of pilots and aligning with recommendations of the VGI Working Group<sup>59</sup> and the VGI Decision's section 6.3. by testing direct control of EV charging by a third-party which could provide benefits to the grid if deployed at a large scale.

PG&E identified this resiliency pilot idea as a feasible, cost-effective and potentially scalable solution through a Request for Information (RFI) issued in January 2021 in compliance with D.20-05-051. PG&E issued the RFI to gauge general market and vendor interest and better understand the available technologies to implement different types of EV resiliency solutions, including a solution that focuses on enhancing customer communication by identifying, analyzing, and incentivizing EV charging in advance of de-energization events. PG&E hypothesizes that proactive charging could be more cost-effective than other reactive EV resiliency emergency services, like mobile DCFC, and will use this pilot to gather valuable data about EV charging behavior in the near-term while gathering results and lessons learned from other ongoing efforts.

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<sup>57</sup> [D.20-12-029](#)

<sup>58</sup> Page 20, VGI Working Group Final Report: <https://gridworks.org/wp-content/uploads/2020/07/VGI-Working-Group-Final-Report-6.30.20.pdf>

<sup>59</sup> VGI Working Group Final Report: <https://gridworks.org/wp-content/uploads/2020/07/VGI-Working-Group-Final-Report-6.30.20.pdf>

### *Stakeholder Feedback*

PG&E engaged with a variety of stakeholders on this pilot proposal pursuant requirements in section 3.11 including local governments, CBOs, EJ organizations and State Agencies. Stakeholders provided valuable feedback on the scope and design of the pilot and supported the value of the pilot in providing resiliency for customers. Specific examples of stakeholder feedback incorporated into the pilot design include:

- The pilot will leverage customer outreach and participation in the Pre-Owned EV Rebate pilot and other equity EV programs as pipelines for customer acquisition in order to enroll a diverse set of EV drivers into the pilot.
- PG&E will work closely with local governments and emergency agencies to coordinate specific messaging to customers in the pilot in the event of a PSPS.
- PG&E will develop mitigations to ensure that the managed charging does not incur above-normal EV charging costs for the customer.
- Likewise, PG&E will develop controls to avoid EV managed charging during peak hours unless absolutely necessary, particularly for local capacity-constrained areas.

### **Customer Eligibility**

This pilot is targeted at customers who live in HFTDs and areas likely to be impacted by PSPS. The specific customer eligibility will depend on the technical capabilities of the third-party software. For example, one software platform may be able to directly control the charging of an EV through specific EVSE brands and another platform may be able to directly control the charging of an EV through vehicle telematics, but only with certain models of EVs. The intent of the pilot is to have a diverse set of pilot participants – diverse in geography, demographics, and type of EV and charger. PG&E will use the scope of work for the pilot implementer RFP [selection](#) process to solicit software solutions that enable as diverse a group of pilot participants as possible and finalize specific customer eligibility requirements in the pilot implementation plan.

There will also be targeted outreach to potentially eligible customers who reside in both HFTDs and areas like to be impacted by PSPS in equity communities, such as DAC, rural, and low-income census tracts as outlined by D.20-12-027 to encourage participation. Participation by equity customers will be critical to generating lessons learned that are representative of PG&E’s diverse customer base.

### **Distribution of Revenue**

PG&E will pay a third-party to implement each of the three aspects of the pilot: 1) EV customer identification in select areas, 2) development of baseline charging behavior for EV customers in select areas before a PSPS and during “blue sky” conditions, and 3) testing customer use and valuation of the software platform and managed charging.

Customers will receive an incentive to enroll in the pilot and will be placed into different groups to test different aspects of the service. An example of what the structure of participant groups could look like in

the pilot is shown in Table 17 below. The actual structure will be determined through further discussions with stakeholders and with the selected pilot implementer.

**Table 17: Possible Participant Groups in Resilient Charging Pilot**

Pilot Group	Activities After Enrollment
Control Group	Enrolls in the pilot but does not receive any EV charging reminder communication (receives PG&E's standard, non-EV driver specific PSPS communications) or have charging actively managed.
Participant Group 1	Receives EV charging reminder communications in advance of events after enrolling in the pilot.
Participant Group 2	Receives EV charging reminder communications and managed charging if the vehicle is plugged in before the event.

PG&E is considering offering incentives to test the value of direct load control for customers and/or cover the cost of any managed charging that occurs during peak hours during a pilot event. PG&E has allocated a portion of the budget for customer incentives and will determine the exact distribution method and payment amount based on the final pilot design and the capabilities of the selected implementer.

The specific details of the participant group requirements and activities such as timing of communications in advance of an event, requirement for participants to be plugged in, and necessary level of charge, will be determined in collaboration with stakeholders and the selected implementer. PG&E will work with Energy Division Staff to finalize the pilot implementation details before pilot launch.

**Program Administration**

PG&E will contract with a third party to implement all aspects of the pilot, except for a survey of customers about vehicle-to-home resiliency solutions which PG&E will conduct as part of Phase 1. ~~PG&E will develop a scope of work and issue an RFP in order to find the most qualified and cost-competitive implementer.~~ While the EV detection and baseline development components of the pilot create an important foundation for the testing of the software platform, the specific qualifications to successfully execute on those components may be distinct from the qualifications necessary to successfully execute on the testing of the software platform. Therefore PG&E may ~~allow responders to the RFP~~ **select a highly qualified and cost-competitive implementer via RFP or direct award** to address all components of the pilot or ~~select~~ only the testing of the software platform or the EV identification and baseline development in their response. ~~This approach ensures that every aspect of the pilot will be covered by the most qualified implementer.~~

Once contracted, the implementer will be responsible for coordinating with PG&E as necessary and executing on the following activities for each component of the pilot:

- **Pre-launch activities:** The implementer will work with PG&E to finalize the pilot structure and develop a detailed implementation plan, coordinate ME&O with PG&E and CBO partners, set up data sharing processes with PG&E for data from EV identification and platform testing, and develop an EM&V plan with the PG&E team.
- **Pilot implementation activities:**

- **EV detection:** The implementer will launch its proposed strategy to detect EV drivers in select HFTD areas (e.g. using disaggregation of utility AMI data, vehicle telematics). The specific detection method will be determined from the ~~RFP response~~ **implementer selection process**.
- **Baseline development:** Based on the method used and data collected from the EV detection component, the implementer will work with PG&E to assess historical charging behavior of identified EV drivers in select areas.
- **Participant enrollment:** The implementer will use its EV detection results, plus data PG&E has on existing EV customers from participation in other programs, to enroll customers in one of five participant groups in the pilot. The implementer will be responsible for demonstrating the vehicle, geographic and demographic diversity of the pilot participants.
- **Software platform testing:** The implementer will manage a minimum of four testing events (if there are fewer than four PSPS events called during the pilot, then the implementer will run a simulated event), including notifications and managed charging. After the events, the implementer will report data from each testing event to the PG&E team.
- **Pilot evaluation activities:** The implementer will be responsible for surveying pilot participants about their experience in the pilot and about their interest in V2H solutions and their current home charging set up. The Implementer will also collect and report key metrics for the pilot as described in more detail in the program evaluation section below.

PG&E will also support pilot implementation and will be responsible for:

- **Pre-launch activities:** PG&E will be responsible for running the RFP **or direct award** process, setting up the selected implementer(s), working with implementer to develop the detailed pilot implementation plan, supporting PG&E ME&O activities. PG&E will also develop a survey to better understand customers' home resiliency needs particularly around vehicle-to-home solutions.
- **Pilot execution activities:** PG&E will also be responsible for the execution of customer survey about V2H resiliency solutions, general implementer oversight, implementer payments, data review and reporting, ME&O coordination, pilot evaluation, and ad hoc requests.

Neither of the lists of activities for the third-party implementer nor for PG&E are intended to be exhaustive. PG&E will further develop the implementation details of the pilot for the SOW and RFP **or direct award** process and then will work closely with the Implementer to finalize the pilot implementation plan.

## ME&O

Given the specific customer eligibility requirements for the resiliency pilot per D.20-12-027, the Implementer will be responsible for all ME&O for the pilot with minor support from PG&E to integrate information about the pilot in existing efforts. The specific customer outreach tactics will depend on the selected implementer and will likely leverage the first phase of the pilot to identify EV drivers in HFTD and areas likely to be impacted by PSPS. While the ME&O efforts will be solely targeting customers in

the select areas, the Implementer will be responsible for ensuring geographic, demographic, and technologic diversity among pilot participants. PG&E will develop the specific participant diversity targets for the Implementer through the RFP process.

The ME&O efforts for the pilot will also be closely coordinated with existing customer communication from PG&E's PSPS team.

Some specific ME&O tactics and responsibilities for each entity may include:

- **PG&E activities:** Supporting customer outreach through message integration with existing PG&E EV and energy programs such as the Pre-Owned EV Rebate pilot and existing PG&E resiliency programs; coordinating efforts with customer outreach and preparedness messaging in advance of PSPS events.
- **Implementer activities:** Executing targeted customer outreach via email campaigns leveraging CFR/CCFR/Pre-Owned EV rebate customer lists and EV customers identified through EV Detection efforts. Details of implementer ME&O activities will be dependent on the specific implementer selected.

This is not an exhaustive list of ME&O activities and specific strategies may be adjusted based on the implementer selected and customer participation as the pilot is implemented. These ME&O efforts will be critical to enrolling a diverse set of customer participants in the pilot in order to produce valuable and widely applicable lessons learned. ME&O efforts will be regularly evaluated and adjusted throughout the pilot as discussed further in the program evaluation section.

The ME&O activities for the pilot are exclusive for customer acquisition for the pilot and are therefore not duplicative of any existing ratepayer funded ME&O. PG&E, in coordination with the implementer, will leverage existing marketing channels and program outreach to include information about the pilot.

## **Program Evaluation**

As described in the Portfolio Structure section, evaluation includes both regular assessment of pilot performance and customer satisfaction, as well as more formal reports and research studies determined by the specific needs of the pilot. The pilot's evaluation activities will include:

- **Key metrics:** PG&E will collect and analyze pilot data on a regular cadence to assess the effectiveness of the pilot. Key data points include:
  - Geographic location and number of EVs in HFTD and areas likely to be impacted by PSPS participating in pilot
  - Historical charging behavior of EV drivers in selected areas before, during, and after previous grid outages and in blue sky conditions
  - Charging behavior of EV customers in each participant group
  - Charging statistics from EV charging during pilot events including time, duration, cost, demand, and utilization
  - State of charge of vehicles before the event
  - Customer demographics
  - Number of customers and vehicle make/model in each group who responded to the event

PG&E will include additional data collection metrics for the pilot once the implementer is contracted and the pilot implementation plan is finalized.

- **ME&O effectiveness:** PG&E will set up a regular cadence of status reporting with the implementer (e.g. weekly/monthly) to evaluate progress of ME&O efforts and identify opportunities for process improvements. PG&E will also regularly evaluate internal ME&O efforts to identify any need for change.
- **Customer experience:** PG&E will review customer survey responses and document key customer insights to inform pilot improvements and customer outreach.
- **Additional studies:** PG&E will assess the specific needs, challenges, and opportunities of the pilot as it is implemented and will suggest additional traditional evaluations or specific research studies as appropriate.

**Estimated Budget and Implementation Schedule**

PG&E is targeting to enroll 8,000 EV customers for the testing of the software platform during the one-year pilot. The target customer enrollment is based on the estimated number of EV drivers in HFTDs and areas likely to be impacted by PSPS and the design of the software testing phase to generate statistically significant lessons learned. Based on market research and discussions with implementers, PG&E has made an assumption of [REDACTED] for the enrollment incentive and budgeted [REDACTED] test the value of direct load control for customers and/or cover the cost of any managed charging that occurs during peak hours during a pilot event. The incentive amounts may be adjusted based on the final design of the pilot participant groups. The technology testing costs were developed in discussions with market vendors and include costs for the EV detection solution, data analysis for baseline development, customer communication, and managed charging. The estimated total pilot budget including incentives and technology testing, pilot administration and ME&O is \$4.76 million. Estimated annual spend for the pilot is detailed in the table below.

**Table 18: Estimated Budget for Resilient Charging Pilot**

Budget in Millions	2021	2022	2023	Total
Incentives + Tech. Testing: Non-equity	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Incentives + Tech. Testing: Equity	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Implementer Program Admin	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
PG&E Administration	\$0.10	\$0.21	\$0.11	\$0.42
General ME&O	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Equity ME&O	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
Evaluation	\$0.00	\$0.05	\$0.05	\$0.10
<b>TOTAL</b>	<b>\$0.10</b>	<b>\$4.48</b>	<b>\$0.17</b>	<b>\$4.76</b>

Budget estimates may change based on adjustments to the incentive amount, ME&O strategies, customer participation, and market factors. PG&E may also extend the length of the pilot based on customer interest and portfolio needs and will work closely with Energy Division Staff on any adjustments to the pilot. PG&E will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report.

Assuming PG&E receives approval for this advice letter by Q3 2021, PG&E currently anticipates launching the pilot in Q2 2022 as shown in the schedule below.

**Table 19: PG&E’s Preliminary Schedule for Resilient Charging Pilot Launch**

June 2021	PG&E files Tier 2 AL
Q3 2021	Estimated timing of possible Commission approval of Tier 2 AL <sup>60</sup>
Q4 2021	PG&E issues RFP <b>or begins direct award process</b>
Q1 2022	PG&E and selected implementer begin EV detection in select areas
Q2 2022	Implementer develops baseline and launches participant enrollment

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<sup>60</sup> CPUC Zero-Emission Vehicle Action Plan - [https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC\\_ZEV-Action-Plan-te-mtx-2.5.pdf](https://static.business.ca.gov/wp-content/uploads/2021/03/CPUC_ZEV-Action-Plan-te-mtx-2.5.pdf)

**5. Non-Holdback Pilot Proposals**

Pursuant to D.14-12-083, PG&E provides the following information on how it will distribute credits generated by non-residential customers.

As described in Section II.A.1, PG&E generates credits from charging that occurs at PG&E workplaces and PG&E-owned chargers in the EVCN program. More detail on PG&E’s non-residential credit generation can be found in the LCFS Annual Report. There are different revenue distribution requirements for non-residential credit revenue than for the holdback credit revenue as outlined in D.20-12-027. Primarily, PG&E must use the credit revenue to benefit current or future EV drivers in California per CARB’s LCFS regulation.<sup>61</sup> PG&E is proposing one Non-Holdback Pilot for the use of the non-residential credit revenue in this Implementation Plan.

**Program #5: Research and Innovation Fund Pilot**

The purpose of the Research and Innovation Fund is to support small proof-of-concept pilots for nascent technologies and research studies to fill in data gaps in support of accelerating widespread TE.

<b>Research and Innovation Fund Pilot</b>	
Customer Segment	All
Program Design	Fund small proof-of-concept pilots and research studies
Implementation Structure	PG&E implemented – internal Steering Committee will evaluate study ideas
Program Goals	<ul style="list-style-type: none"> <li>• Support research and development in TE technology</li> <li>• Enable a fail fast, fail forward approach to supporting EV adoption through utility pilots</li> <li>• Generate lessons learned that can inform other PG&amp;E TE programs and plans.</li> </ul>
Timeframe & Launch Date	Rolling; Q2 2022 (anticipated)
Total budget	\$0.16 million (per year)
Funding source	Non-residential credit revenue

The EV market is constantly changing and new technology being developed has the potential to significantly impact the scale and speed of EV adoption in California. Utility pilots are important ways to test technologies and strategies to support customers, and large utility programs are critical to deploying those solutions to the market at scale. However, before a technology or strategy can be used in a pilot or program, it must first be vetted for its safety, capabilities, and ability to meet specific customer needs. This often requires securing funding through a lengthy and administratively intensive process. A specific fund focused on quickly assessing TE technology solutions and filling in data gaps can complement other innovation programs, build off the current work and partnerships that are supporting EV adoption, and help accelerate the EV market.

<sup>61</sup> 17 CCR § 95491 (d)(3)(A) paragraph 2, pp 196.

There are existing innovation programs to support research and development at the utility including the Electric Program Investment Charge (EPIC), which supports the development of non-commercialized new and emerging clean energy technologies in California and provides assistance to commercially viable projects, and the in-development Joint Utilities' VGI/TE Emerging Technology Program, which supports research on customer needs and testing of TE technologies in the development stage. The EPIC program has funded TE-related pilots but has a broader focus to support all types of clean energy technologies and requires a more involved application process, where applicants have limited occasional windows to request funding. The VGI/TE Emerging Technology Program, which is still in development, is proposed to be specifically focused on supporting VGI development and deployment, making the eligible project list more narrow than general TE technology solutions.

The LCFS Research and Innovation (R&I) Fund would provide incremental support to these existing innovation efforts specifically for small, proof-of-concept TE emerging technology projects. The R&I fund projects would be much smaller in scale – hundreds of thousands of dollars compared to the millions in EPIC and the VGI/TE Emerging Technology Program each year – and would not necessarily require the technology to be scaled after the project depending on the results. The Fund would also be complementary to the EPIC efforts by providing a more streamlined vetting process due to the smaller size of the pilots and the non-ratepayer source of funding. The CET team administering the R&I Fund will also work closely with the VGI/TE Emerging Technology Program Governance Team, once it is established at PG&E, to ensure there is no duplication and that the R&I Fund projects are complementary. The R&I Fund can also provide additional financial support, if necessary, to projects in the VGI/TE Emerging Technology Program or fund a specific project that did not meet one of specific program requirements but would still be valuable to test.

PG&E met with several stakeholders during the design of this pilot who were supportive of the pilot design and recognized the need for additional support for research and development in the EV market.

Aligned with PG&E's LCFS guiding principles discussed in Section B.1, the R&I Fund objectives are to:

- Support current and future EV drivers in California through TE research and development
- Fill in information gaps regarding customer needs, technology capabilities, costs, and benefits
- Align with market and customer needs
- Complement existing pilots and processes

PG&E proposes to leverage PG&E's existing TE-related work and the VGI/TE Emerging Technology Program process to identify technology barriers. Potential project categories that would be funded by the R&I fund could include:

- Data & analysis (e.g. market trends and customer needs)
- Hardware (e.g. safety testing of a streetlight-mounted charger)
- Software (e.g. discrete testing of automated load management technology)

PG&E will establish a uniform and transparent method of project intake and evaluation and establish a cross-cutting Steering Committee with members from PG&E's Clean Energy Transportation, EPIC, VGI, Grid Planning, and Grid Innovation teams to evaluate the proposed projects for funding. PG&E will use existing facilities, like the Applied Technology Services, to test proof-of-concepts and aim to leverage funding via partnership where feasible. To minimize the administrative costs of the pilot, PG&E proposes

executing on the project intake and evaluation process once or twice a year. Using a stage/gate process, the CET team will develop project ideas, ensure projects are in line with the Fund’s objectives and state, regulatory, and IOU initiatives and select the projects with the highest potential and feasibility. CET will then present the prioritized list of projects to the Steering Committee who will evaluate the projects based on certain weighted criteria including:

- Market fit –
  - What specific barrier to TE - access to infrastructure, total cost of ownership, education and awareness, grid modernization - does this project address?
  - How would this specifically support the State’s TE goals?
  - How would this specifically support PG&E EV customers?
  - What is the perceived functional/economic value?
- Technology fit –
  - How novel/innovative is the project?
  - What are the difficulties in developing the technology? What is the product range and growth potential for the technology?
  - How would PG&E scale this technology if tested successfully?
- Business fit –
  - Which PG&E TE strategy pillars would this project “move the needle” on?
  - What internal resources are available to support this project if tested successfully?

Once a project was selected for funding, the appropriate team within PG&E will run the project, evaluate the success, and document results and lessons learned to be shared internally, with Energy Division and CARB staff, and others externally as appropriate.

PG&E will only use revenue from non-residential credits, which are currently generated from charging at PG&E workplaces and EVCN Charge Sponsor sites, for this pilot and will never exceed the amount of non-residential credit revenue that is in the balancing account. PG&E estimates that it will fund \$100,000 worth of projects and approximately \$60,000 in program administration and evaluation each year. The annual budget is based off of credit generation in 2020 and 2021 which was significantly impacted by shelter-in-place orders due to COVID-19. As shelter-in-place orders are lifted and people begin to return to work and their daily travel behaviors, EV charging, and therefore credit generation, at PG&E workplace sites and EVCN Charge Sponsor sites may increase and PG&E may adjust the annual budget of the R&I Fund projects accordingly. The program administration costs for the pilot are expected to remain fixed and the administration cost to project funding ratio will decrease as more credit revenue is generated for the project funding. There is no ME&O necessary for the implementation of this pilot since it is an internal fund. Estimated annual spend for the pilot is detailed in the table below.

**Table 20: Estimated Budget for Research and Innovation Fund Pilot**

Budget in Millions	Annual
Project Funding	\$0.10
Program Administration & Evaluation	\$0.06
<b>TOTAL</b>	<b>\$0.16</b>

PG&E does not propose an end date to this pilot and will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report. Any different or additional pilots for the use of non-residential credit revenue will be proposed in a Tier 2 AL.

Assuming PG&E receives approval for this advice letter by Q3 2021, PG&E currently anticipates launching the pilot in Q2 2022 as shown in the schedule below.

**Table 21: PG&E’s Preliminary Schedule for Research and Innovation Fund Pilot Launch**

June 2021	PG&E files Tier 2 AL
Q3 2021	Estimated timing of possible Commission approval of Tier 2 AL
Q1 2022	PG&E develops project intake and evaluation process and sets up Steering Committee
Q2 2022	PG&E begins funding projects

**III. REVENUE RETURN TO GAS CUSTOMERS**

PG&E provides the following information regarding its plans for the return of revenue to eligible gas customers pursuant to Item 7.a through 7.i of Appendix A: Tier 2 Advice Letter Filing Requirements in D.14-12-083, as well as the information requested in the discussion sections of D.14-12-083.

**A. Summary of Changes to PG&E’s 2015 LCFS Implementation Plan**

PG&E will continue returning revenue from its compressed natural gas (CNG) proceeds as described in the 2015 implementation plan. The program was developed in response to Items 7.a through 7.j of Appendix A: Tier 2 Advice Letter Filing Requirements in D.14-12-083, as well as information requested in the discussion sections of D.14-12-083. The revenue return program will not change from the original design. However, how PG&E generates credits and revenue has changed, and this is described below.

**1. Renewable Natural Gas Pilot**

PG&E filed Advice Letter 3961-G and received approval in June 2018 to scope out a voluntary renewable natural gas (RNG) pilot. The scope of this three-year pilot is to procure renewable natural gas and replace 100% of the CNG dispensed at PG&E’s natural gas stations for internal and external fleet use. PG&E executed a contract with the RNG provider in October 2019. Per this contract, PG&E provides the vendor with meter reads of CNG dispensed at PG&E-owned stations and the vendor reports volumes on a quarterly basis to CARB to receive LCFS CNG credits. In return, PG&E receives revenue from the vendor which will be returned to customers as in previous years, minus any administrative costs incurred by PG&E.

Since RNG has a lower carbon intensity than CNG, PG&E generates more credits – and receives more revenues – through the pilot than it would have otherwise.<sup>62</sup> This in turn will benefit PG&E’s CNG

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<sup>62</sup> PG&E receives all revenues from base credits – revenues PG&E would have generated if it were not participating in this pilot – plus a portion of the incremental credits, per the contract with the RNG provider.

customers as they will receive larger rebates in addition to climate benefits from using much lower-carbon fuels.

**B. 2021 Gas Program**

PG&E will continue to run one program for its gas customers, the Renewable Natural Gas Fuel Credit.

**Program #6: Renewable Natural Gas Fuel Credit**

The Renewable Natural Gas Fuel Credit is an on-bill credit split across all active customers using PG&E’s CNG stations, based on each customer’s share of the total usage.

Renewable Natural Gas Fuel Credit	
Customer Segment	Residential and commercial customers fueling CNG vehicles at PG&E-owned stations
Program Design	Annual on-bill credits that divide the annual LCFS revenue between customers based on their pro-rata share of CNG usage.
Implementation Structure	PG&E implemented – team calculates on-bill credit amounts and issues credits to customer bills
Program Goals	<ul style="list-style-type: none"> <li>• Support CNG vehicle adoption (especially in segments that are difficult to electrify)</li> <li>• Decrease carbon emissions with low- or negative-carbon RNG</li> </ul>
Timeframe & Launch Date	Rolling; launched in 2016
Total budget	██████████ (for 2021 return)
Funding source	CNG credits

**Policy/Market Support**

Ordering Paragraph 2 of D.14-12-083 provided gas utilities with two options to return their gas revenues: a point-of-sale price discount on CNG fuel, or an on-bill credit. PG&E proposed and was approved to use an on-bill credit, which takes advantage of existing billing systems. The on-bill credit allows PG&E to maximize the amount of revenue returned to customers by minimizing administration and marketing costs. It is simple, and customers do not need to do anything to receive the credit – PG&E runs the calculations, and the rebate is automatically applied through an annual on-bill credit.

**Customer eligibility (2, 3 D.14-12-083)**

LCFS gas revenue is available to customers who consume fuel at PG&E’s publicly-accessible CNG fueling stations. This includes both public customers – which may be residential or non-residential customers – and PG&E’s internal fleet. PG&E only generates LCFS credits for fueling stations that it

owns. Therefore, customers that fuel their vehicles exclusively at non-PG&E-owned stations are not eligible for the rebate, even if they receive CNG from PG&E.<sup>63</sup>

In order to purchase fuel at PG&E's stations, customers must have an existing account with PG&E specific to the use of the CNG fueling stations. To receive a rebate, customers must have an active CNG fueling account at the time the rebate is paid. Vehicle ownership and changes will not need to be identified and addressed since customers will receive a rebate based on the volume of CNG they purchased from PG&E for fueling CNG vehicles, regardless of the vehicles they fueled or who owns them.

### **Distribution of Revenue (4, 5 D.14-12-083)**

PG&E provides a rebate in the form of an on-bill credit to customers who fuel at PG&E CNG stations. To calculate the amount of revenue to be distributed to each recipient, PG&E takes the total amount of gas revenue determined to be distributed for a given Rebate Period and divides it pro rata among each eligible recipient based on each customer's total CNG fuel consumption during the Rebate Period. Except for the first rebate in 2017, the Rebate Period has spanned one calendar year and the rebate has been run the following calendar year.<sup>64</sup> PG&E distributes rebates by means of an annual rebate on the customer's bill. PG&E reserves the option to return revenue by any means approved by the Commission.

### **Program Administration**

PG&E is responsible for calculating each customer's rebate amount based on their share of CNG consumption over the Rebate Period and ensuring that the rebates are posted to each customer's PG&E bill. The program staff also coordinates with the PG&E Natural Gas Vehicles team to gather data and handle any customer inquiries.

### **ME&O**

PG&E conducts targeted, one-to-one outreach to rebate recipients, designed to explain the purpose of the program and to provide information about the on-bill credit and the rebate amount calculation. This occurs in two forms: each customer receiving an on-bill credit receives a mailed letter or email alerting them that the credit is coming soon, and customers that earn more than \$5,000 in credit also receive a direct call or email from their Business Energy Solutions representative.

Because customers have an existing relationship with PG&E through their CNG fueling station account, PG&E does not need to conduct outreach activities to identify eligible customers. PG&E believes that relatively low-cost marketing approaches are appropriate for this program given the established relationships with customers and the fact that funds spent on marketing directly reduce the amount of revenue available to distribute to recipients.

### **Budget**

PG&E files an estimate of the amount of gas revenue to be returned (total gas credit proceeds for the prior calendar year, minus administration costs for the prior year) in its Annual LCFS Forecast Advice Letters.

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<sup>63</sup> PG&E has five CNG rates that customers can choose from. Only customers on the G-NGV2 rate, which is for fueling at PG&E-owned stations, are eligible for the credit.

<sup>64</sup> The 2017 rebate spanned consumption from 2011 through 2016, as PG&E did not have a program in place to return revenue to customers until 2016.

In 2021, PG&E will return gas revenue generated in 2020. Administration includes program management (compliance, reporting), IT system work (to update the system that is used to provide on-bill credits), and PG&E credit sales through the first half of the year.

**Table 22: Estimated Budget for 2021 Renewable Natural Gas Fuel Credit**

Budget in Millions	2021
Rebates	
Program Administration	
ME&O	
<b>TOTAL</b>	

The fuel credit is typically provided to customers in Q3 or Q4 of the year following the Rebate Period.

PG&E does not propose an end date to this pilot and will continue to provide updated forecasts in the Annual LCFS Forecast AL and updated expenditures in the annual report. Any different or additional pilots for the use of gas credit revenue will be proposed in a Tier 2 advice letter.

#### **IV. CONCLUSION**

Pursuant to OP 3 of Decision 20-12-027, PG&E hereby submits this LCFS Implementation Plan detailing five program proposals for the LCFS electric credit revenue return to customers and one program proposal for the natural gas revenue return to customers. Any future program proposals will be made via a Tier 2 AL updating the LCFS Implementation Plan.

##### **A. Summary of Compliance Requirements for Revenue Return to Electric Customers**

For ease of reference, the following three tables detail the requirements for the LCFS revenue return to electric customers and the specific page numbers in the Implementation Plan demonstrating compliance.

**Table 23: General Information Questions per D.14-12-083**

Questions		General	Holdback Program				Non-Holdback Program
		Implementation Plan	Pre-Owned EV Rebate	MUD/Small Business Direct Install	Residential Charging Solutions	Resilient Charging	Research and Innovation Fund
		Page	Page	Page	Page	Page	Page
1	How will the large electrical corporation calculate the number of LCFS credits generated by each customer?	6	N/A	N/A	N/A	N/A	N/A
2	Who receives the revenue from the sale of LCFS credits?	11,12	26	33	44	51	56
3	How are LCFS revenue recipients identified?	N/A	26	33	44	51	56,57
4	How will the large electrical corporation calculate the amount of revenue to be distributed to each customer, if appropriate?	N/A	26,27,30	33,34,37	44,45,48	51,52,55	57
5	By what means is the revenue distributed to the customer and how frequently is revenue distributed?	N/A	26,27	33,34	44,45	51,52	57
6	How will vehicle ownership changes be identified, addressed, and tracked?	N/A	26	N/A	N/A	N/A	N/A
7	How will the large electrical corporation track and true-up revenues and disbursements from the program?	8	N/A	N/A	N/A	N/A	N/A
8	How will the program be marketed in a competitively neutral manner so that plug-in EV owners, regardless of their load serving entity, are aware that they are eligible to receive LCFS revenue?	14,15	28	35	46	53,54	N/A
9	How will the large electrical corporation receive and distribute credits generated by non-residential customers?	6,14	N/A	N/A	N/A	N/A	55

**Table 24: Implementation Plan Compliance Questions per D.12-20-027 Section 3.11**

Questions		General	Holdback Program				Non-Holdback Program
		Implementation Plan	Pre-Owned EV Rebate	MUD/Small Business Direct Install	Residential Charging Solutions	Resilient Charging	Research and Innovation Fund
		Page	Page	Page	Page	Page	Page
1	How are its LCFS holdback expenditures dedicated to equity projects or resiliency projects in the years considered by the Implementation Plan?	N/A	26	34,35	42,44	49,51	N/A
2	How do each of its LCFS holdback expenditures and planned investments benefit current or future EV drivers in the state?	N/A	23	31,32	41,42	49,50	N/A
3	How do its LCFS holdback expenditures comply with all other CARB regulations regarding the use of LCFS holdback funds?	20	20,26	20,34	20,41,42	20,49,50	N/A
4	How does any proposal for its LCFS holdback expenditure:						
4a	<u>Demonstrate input</u> from environmental justice groups and/or community-based organizations?	22	25	34,35	43,44	51	N/A
4b	<u>Address gaps in program design</u> not already addressed through a large electrical corporation's TE expenditures or other publicly funded program, or in the alternative how the proposed expenditure will reduce costs to ratepayers?	N/A	24,25	33,34	42,43	50	N/A
4c	<u>Address a barrier to TE</u> , equity, and/or resiliency?	N/A	23	31,32	41,42	49,50	N/A
4d	<u>Include data collection requirements</u> that allow for an evaluation of the effectiveness of the proposal in addressing TE, equity, and/or resiliency barriers?	16	29	38,39	47	54	N/A

5	How will any proposal for an equity project be for the primary benefit of or primarily serve communities eligible for equity project expenditures?	N/A	26	35	N/A	51	N/A
6	How is any proposal for a resiliency project aligned with other TE-related utility resiliency efforts, including but not limited to Public Safety Power Shutoffs (PSPS) and Wildfire Mitigation Plans, and reflects consultation with EV service providers where appropriate?	N/A	N/A	N/A	N/A	50	N/A
7	How does any proposal for a resiliency project align with Commission policy on vehicle-grid integration (VGI)?	N/A	N/A	N/A	N/A	50	N/A

**Table 25: Specific Project Compliance Questions per D.12-20-027 Section 3.11**

Questions	General	Holdback Program				Non-Holdback Program
	Implementation Plan	Pre-Owned EV Rebate	MUD/Small Business Direct Install	Residential Charging Solutions	Resilient Charging	Research and Innovation Fund
	Page	Page	Page	Page	Page	Page
<b>For additional rebates or incentives for low-income individuals</b>						
How are the proposal's aims not already address in existing programs?	N/A	24,25	N/A	42,43	N/A	N/A
What TE barrier does the proposal address?	N/A	23,24	N/A	41,42	N/A	N/A
<b>For investment in public EV charging infrastructure and EV charging infrastructure in multi-family residences</b>						
How does the proposal address gaps or barriers not addressed by current programs or how does it reduce cost of ongoing programs to ratepayers?	N/A	N/A	33,34	N/A	N/A	N/A

## **Attachment 3**

### **Confidential Declarations and Matrix**

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

**DECLARATION SUPPORTING CONFIDENTIAL DESIGNATION  
ON BEHALF OF  
PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)**

1. I, \_\_\_\_\_ Suncheth Bhat \_\_\_\_\_, am a/the \_\_\_\_\_ Director, Clean Energy Transportation \_\_\_\_\_ of Pacific Gas and Electric Company (“PG&E”), a California corporation. \_\_\_\_\_ Laurie Giammona \_\_\_\_\_, the \_\_\_\_\_ SVP \_\_\_\_\_ of PG&E, delegated authority to me to sign this declaration. My business office is located at:

Pacific Gas and Electric Company  
77 Beale Street  
San Francisco, CA 94105

2. PG&E will produce the information identified in paragraph 3 of this Declaration to the California Public Utilities Commission (“CPUC”) or departments within or contractors retained by the CPUC in response to a CPUC audit, data request, proceeding, or other CPUC request.

Name or Docket No. of CPUC Proceeding (if applicable): Rulemaking 18-12-006

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3. Title and description of document(s):

Confidentiality Declaration\_LCFS Implementation

PG&E Advice Letter 6226-E-A “Attachment 1: PG&E 2021 LCFS Implementation Plan”  
- includes information on PG&E’s LCFS electric revenue return, including five new program proposals and PG&E’s LCFS gas revenue return.

4. These documents contain confidential information that, based on my information and belief, has not been publicly disclosed. These documents have been marked as confidential, and the basis for confidential treatment and where the confidential information is located on the documents are identified on the following chart, with further detail provided in Appendix A, which is incorporated into this declaration:

Check	Basis for Confidential Treatment	Where Confidential Information is located on the documents
<input type="checkbox"/>	<p>Customer-specific data, which may include demand, loads, names, addresses, and billing data</p> <p>(Protected under PUC § 8380; Civ. Code §§ 1798 <i>et seq.</i>; Govt. Code § 6254; Public Util. Code § 8380; Decisions (D.) 14-05-016, 04-08-055, 06-12-029)</p>	
<input type="checkbox"/>	<p>Personal information that identifies or describes an individual (including employees), which may include home address or phone number; SSN, driver’s license, or passport numbers; education; financial matters; medical or employment history (not including PG&amp;E job titles); and statements attributed to the individual</p> <p>(Protected under Civ. Code §§ 1798 <i>et seq.</i>; Govt. Code § 6254; 42 U.S.C. § 1320d-6; and General Order (G.O.) 77-M)</p>	
<input type="checkbox"/>	<p>Physical facility, cyber-security sensitive, or critical energy infrastructure data, including without limitation critical energy infrastructure information (CEII) as defined by the regulations of the Federal Energy Regulatory Commission at 18 C.F.R. § 388.113</p> <p>(Protected under Govt. Code § 6254(k), (ab); 6 U.S.C. § 131; 6 CFR § 29.2)</p>	
<input checked="" type="checkbox"/>	<p>Proprietary and trade secret information or other intellectual property and protected market sensitive/competitive data</p> <p>(Protected under Civ. Code §§3426 <i>et seq.</i>; Govt. Code §§ 6254, <i>et seq.</i>, e.g., 6254(e), 6254(k), 6254.15; Govt. Code § 6276.44; Evid. Code §1060; D.11-01-036)</p>	<p>PG&amp;E Advice Letter 6226-E-A Attachment 1 – pages 5, 21, 30, 39, 47, 48, 55, 61, 63</p>
<input type="checkbox"/>	<p>Corporate financial records</p>	

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(Protected under Govt. Code §§ 6254(k), 6254.15)

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Third-Party information subject to non-disclosure or confidentiality agreements or obligations  
(Protected under Govt. Code § 6254(k); see, e.g., CPUC D.11-01-036)

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Other categories where disclosure would be against the public interest (Govt. Code § 6255(a))

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5. The importance of maintaining the confidentiality of this information outweighs any public interest in disclosure of this information. This information should be exempt from the public disclosure requirements under the Public Records Act and should be withheld from disclosure.
6. I declare under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge.
7. Executed on this 5<sup>th</sup> day of October, 2021 at San Francisco, California.

Suncheth Bhat

Suncheth Bhat  
Director, Clean Energy Transportation  
Pacific Gas and Electric Company

PACIFIC GAS AND ELECTRIC COMPANY (U 39 E)

**RULEMAKING 18-12-006**  
**ATTACHMENT TO DECLARATION**  
May 14<sup>th</sup> 2021

<u>ATTACHMENT NAME</u>	<u>DOCUMENT NAME</u>	<u>CATEGORY OF CONFIDENTIALITY</u>	<u>LOCATION</u>
PG&E Advice Letter 6226-E-A Attachment 1: PG&E 2021 LCFS Implementation Plan	2021 LCFS Implementation Plan	Proprietary and trade secret information or other intellectual property and protected market sensitive/competitive data	PG&E Advice Letter 6226-E-a Attachment 1 – pages 5, 21, 30, 39, 47, 48, 55, 61, 63

**PG&E Gas and Electric  
Advice Submittal List  
General Order 96-B, Section IV**

AT&T  
Albion Power Company

Alta Power Group, LLC  
Anderson & Poole

Atlas ReFuel  
BART

Barkovich & Yap, Inc.  
California Cotton Ginners & Growers Assn  
California Energy Commission

California Hub for Energy Efficiency  
Financing

California Alternative Energy and  
Advanced Transportation Financing  
Authority  
California Public Utilities Commission  
Calpine

Cameron-Daniel, P.C.  
Casner, Steve  
Cenergy Power  
Center for Biological Diversity

Chevron Pipeline and Power  
City of Palo Alto

City of San Jose  
Clean Power Research  
Coast Economic Consulting  
Commercial Energy  
Crossborder Energy  
Crown Road Energy, LLC  
Davis Wright Tremaine LLP  
Day Carter Murphy

Dept of General Services  
Don Pickett & Associates, Inc.  
Douglass & Liddell

East Bay Community Energy Ellison  
Schneider & Harris LLP Energy  
Management Service  
Engineers and Scientists of California

GenOn Energy, Inc.  
Goodin, MacBride, Squeri, Schlotz &  
Ritchie

Green Power Institute  
Hanna & Morton  
ICF

IGS Energy  
International Power Technology

Intertie

Intestate Gas Services, Inc.  
Kelly Group  
Ken Bohn Consulting  
Keyes & Fox LLP  
Leviton Manufacturing Co., Inc.

Los Angeles County Integrated  
Waste Management Task Force  
MRW & Associates  
Manatt Phelps Phillips  
Marin Energy Authority  
McKenzie & Associates

Modesto Irrigation District  
NLine Energy, Inc.  
NRG Solar

OnGrid Solar  
Pacific Gas and Electric Company  
Peninsula Clean Energy

Pioneer Community Energy

Public Advocates Office

Redwood Coast Energy Authority  
Regulatory & Cogeneration Service, Inc.  
SCD Energy Solutions  
San Diego Gas & Electric Company

SPURR  
San Francisco Water Power and Sewer  
Semptra Utilities

Sierra Telephone Company, Inc.  
Southern California Edison Company  
Southern California Gas Company  
Spark Energy  
Sun Light & Power  
Sunshine Design  
Tecogen, Inc.  
TerraVerde Renewable Partners  
Tiger Natural Gas, Inc.

TransCanada  
Utility Cost Management  
Utility Power Solutions  
Water and Energy Consulting Wellhead  
Electric Company  
Western Manufactured Housing  
Communities Association (WMA)  
Yep Energy